

Internal Control Over Financial Reporting

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of Brookfield Asset Management Inc. (Brookfield) is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the Chief Executive Officer and the Chief Financial Officer and effected by the Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board as defined in Regulation 240.13a-15(f) or 240.15d-15(f).

Management assessed the effectiveness of Brookfield's internal control over financial reporting as of December 31, 2019, based on the criteria set forth in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management concludes that, as of December 31, 2019, Brookfield's internal control over financial reporting is effective. Management excluded from its assessment the internal control over financial reporting for Aveo Group, Hotel Leelaventure Limited, East-West Pipeline Limited, Genesee & Wyoming Inc., DCI Data Centers, Wireless Infrastructure Group, NorthRiver Midstream Inc. (the federally regulated portion of Enbridge Inc.'s Canadian natural gas midstream business), Clarios Global LP, Healthscope Limited, Genworth MI Canada Inc., Ouro Verde Locação e Serviços S.A., and the 320 MW distributed generation portfolio, which were acquired during 2019, and whose total assets, net assets, revenues and net income constitute approximately 15%, 14%, 11% and -9% respectively, of the consolidated financial statement amounts as of and for the year ended December 31, 2019.

Brookfield's internal control over financial reporting as of December 31, 2019, has been audited by Deloitte LLP, the Independent Registered Public Accounting Firm, who also audited Brookfield's consolidated financial statements for the year ended December 31, 2019. As stated in the Report of Independent Registered Public Accounting Firm, Deloitte LLP expressed an unqualified opinion on the effectiveness of Brookfield's internal control over financial reporting as of December 31, 2019.



Bruce Flatt
Chief Executive Officer



Nicholas Goodman
Chief Financial Officer

March 26, 2020
Toronto, Canada

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Brookfield Asset Management Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Brookfield Asset Management Inc. and subsidiaries (the “Company”) as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019 of the Company and our report dated March 26, 2020, expressed an unqualified opinion on those financial statements.

As described in Management’s Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at Aveo Group, Hotel Leelaventure Limited, East-West Pipeline Limited, Genesee & Wyoming Inc., DCI Data Centers, Wireless Infrastructure Group, NorthRiver Midstream Inc. (the federally regulated portion of Enbridge Inc.’s Canadian natural gas midstream business), Clarios Global LP, Healthscope Limited, Genworth MI Canada Inc., Ouro Verde Locação e Serviços S.A., and the 320 MW distributed generation portfolio, which were acquired during 2019 and whose financial statements constitute, in aggregate, 15% of total assets, 14% of net assets, 11% of revenues and -9% of net income of the consolidated financial statement amounts as of and for the year ended December 31, 2019. Accordingly, our audit did not include the internal control over financial reporting at Aveo Group, Hotel Leelaventure Limited, East-West Pipeline Limited, Genesee & Wyoming Inc., DCI Data Centers, Wireless Infrastructure Group, NorthRiver Midstream Inc. (the federally regulated portion of Enbridge Inc.’s Canadian natural gas midstream business), Clarios Global LP, Healthscope Limited, Genworth MI Canada Inc., Ouro Verde Locação e Serviços S.A., and the 320 MW distributed generation portfolio.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte LLP

Chartered Professional Accountants
Licensed Public Accountants

Toronto, Canada
March 26, 2020

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

The accompanying consolidated financial statements and other financial information in this Annual Report have been prepared by the company's management which is responsible for their integrity, consistency, objectivity and reliability. To fulfill this responsibility, the company maintains policies, procedures and systems of internal control to ensure that its reporting practices and accounting and administrative procedures are appropriate to provide a high degree of assurance that is relevant and reliable financial information is produced and assets are safeguarded. These controls include the careful selection and training of employees, the establishment of well-defined areas of responsibility and accountability for performance, and the communication of policies and code of conduct throughout the company. In addition, the company maintains an internal audit group that conducts periodic audits of the company's operations. The Chief Internal Auditor has full access to the Audit Committee.

These consolidated financial statements have been prepared in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board and, where appropriate, reflect estimates based on management's judgment. The financial information presented throughout this Annual Report is consistent with the information contained in the accompanying consolidated financial statements.

Deloitte LLP, the Independent Registered Public Accounting Firm appointed by the shareholders, have audited the consolidated financial statements set out on pages 128 through 211 in accordance with the standards of the Public Company Accounting Oversight Board (United States) to enable them to express to the shareholders and the board of directors their opinion on the consolidated financial statements. Their report is set out on the following page.

The consolidated financial statements have been further reviewed and approved by the Board of Directors acting through its Audit Committee, which is comprised of directors who are neither officers nor employees of the company. The Audit Committee, which meets with the auditors and management to review the activities of each and reports to the Board of Directors, oversees management's responsibilities for the financial reporting and internal control systems. The auditors have full and direct access to the Audit Committee and meet periodically with the committee both with and without management present to discuss their audit and related findings.



Bruce Flatt
Chief Executive Officer



Nicholas Goodman
Chief Financial Officer

March 26, 2020
Toronto, Canada

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Brookfield Asset Management Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Brookfield Asset Management Inc. and subsidiaries (the “Company”) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and its financial performance and its cash flows for each of the two years in the period ended December 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 26, 2020, expressed an unqualified opinion on the Company’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements; and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Fair Value of Investment Properties and Property, Plant and Equipment – Refer to Notes 2(h)(i), 2(h)(ii), 11 and 12 to the financial statements

Critical Audit Matter Description

The Company has elected the fair value model for investment properties and the revaluation model for certain classes of property, plant and equipment, namely the Company’s renewable power generating, utilities, transport, communication, energy, and hospitality operating assets. The Company measures these assets at fair value or revalued amount subsequent to initial recognition on the balance sheet.

The investment properties and certain classes of property, plant and equipment have limited observable market activity, which requires management to make significant estimates and assumptions in the determination of fair value. The estimates and assumptions with the highest degree of subjectivity and impact on fair values are future expected market rents and revenues, operating margins, terminal value multiples, terminal capitalization rates, and discount rates. Auditing these estimates and assumptions required a high degree of auditor judgment as the estimations made by management contains significant measurement uncertainty. This resulted in an increased extent of audit effort, including the need to involve fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to future expected market rents and revenues, operating margins, terminal value multiples, terminal capitalization rates, and discount rates of investment properties and certain classes of property, plant and equipment included the following, among others:

- Evaluated the effectiveness of controls, including those related to management's process for determining investment properties and certain classes of property, plant and equipment fair values including those over determining future expected market rents and revenues, operating margins, terminal value multiples, terminal capitalization rates, and discount rates.
- Tested management's future expected market rents and revenues, operating margins, terminal value multiples, terminal capitalization rates, and discount rates through independent analysis and comparison to external sources including objective contractual information, and observable economic indicators, where applicable.
- Evaluated management's ability to accurately estimate fair value and future expected market rents and revenues and operating margins by comparing management's historical fair value estimates to market transactions and forecasts to actual results.
- Evaluated the impact of current market events and conditions, including relevant comparable transactions, on the assumptions used by management.
- With the assistance of fair value specialists, we evaluated the reasonableness of management's determination of terminal value multiples, terminal capitalization rates, and discount rates by (1) testing the source information underlying the determination of terminal value multiples, terminal capitalization rates, and discount rates; (2) developing a range of independent estimates and comparing those to the terminal value multiples, terminal capitalization rates, and discount rates selected by management; and (3) considering recent market transactions and industry surveys.

Acquisitions and Equity Accounted Investments – Refer to Notes 2(d)(i), 2(d)(ii), 2(k), 2(r), 5 and 10 to the financial statements

Critical Audit Matter Description

The Company made a number of acquisitions of entities during the year. When each entity was acquired, the Company assessed the degree of influence it exerted and whether it had control. Once it was established that control was obtained, the Company accounted for the transaction using the acquisition method of accounting. When control was not obtained, the Company evaluated whether it exercised significant influence over the entity and accounted for it as an equity accounted investment, further considering whether there was joint control. The purchase price of each acquisition (under the acquisition method) was allocated to the assets acquired and liabilities assumed based on their respective fair values at the acquisition date. This allocation required numerous estimates that affect the fair value of certain assets and liabilities acquired including discount rates, estimates for future revenues, operating costs and other expenditures, in addition to other factors.

For the Company to assess whether control was obtained, management made judgments to evaluate whether it had power over the investee, exposure, or rights, to variable returns from its involvement with the entity and the ability to use that power to affect their returns. In addition, while there were many judgments made by management in the determination of the fair value of the assets acquired and the liabilities assumed, the estimates with the greatest uncertainty for the largest acquisition (Clarios Global LP) were forecasted revenue, EBITDA, and discount rates in the valuation of intangible assets. Auditing these estimates and judgments required a high degree of auditor judgment as the estimations made by management contained significant measurement uncertainty. This resulted in an increased extent of audit effort, including the involvement of fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the estimates and judgments made by management in the acquisitions of entities included the following, among others:

- Evaluated the effectiveness of controls over management's process for determining the basis of accounting for the Company's investees.
- Evaluated the reasonableness of management's judgments in the determination that control existed through the review of partnership and other agreements.
- Evaluated the effectiveness of controls over the valuation of intangible assets, including those over forecasted revenue, EBITDA and the discount rate.
- Evaluated the reasonableness of management's forecasted revenue and EBITDA used in the valuation of intangible assets by comparing the projections to historical results, analyst industry reports and evidence obtained in other areas of the audit.
- With the assistance of fair value specialists, evaluated the reasonableness of the discount rates used in the valuation of intangible assets, including testing the source information underlying the determination of the discount rates, testing the mathematical accuracy of the calculations, and developing a range of independent estimates, comparing it to the discount rates selected by management.

/s/ Deloitte LLP

Chartered Professional Accountants
Licensed Public Accountants

Toronto, Canada
March 26, 2020

We have served as the Company's auditor since 1971.

Consolidated Financial Statements

CONSOLIDATED BALANCE SHEETS

AS AT DEC. 31
(MILLIONS)

	Note	2019	2018
Assets			
Cash and cash equivalents	6	\$ 6,778	\$ 8,390
Other financial assets	6	12,468	6,227
Accounts receivable and other	7	18,469	16,931
Inventory	8	10,272	6,989
Assets classified as held for sale	9	3,502	2,185
Equity accounted investments	10	40,698	33,647
Investment properties	11	96,686	84,309
Property, plant and equipment	12	89,264	67,294
Intangible assets	13	27,710	18,762
Goodwill	14	14,550	8,815
Deferred income tax assets	15	3,572	2,732
Total assets		\$ 323,969	\$ 256,281
Liabilities and equity			
Corporate borrowings	16	\$ 7,083	\$ 6,409
Accounts payable and other	17	43,077	23,989
Liabilities associated with assets classified as held for sale	9	1,690	812
Non-recourse borrowings of managed entities	18	136,292	111,809
Deferred income tax liabilities	15	14,849	12,236
Subsidiary equity obligations	19	4,132	3,876
Equity			
Preferred equity	21	4,145	4,168
Non-controlling interests	21	81,833	67,335
Common equity	21	30,868	25,647
Total equity		116,846	97,150
Total liabilities and equity		\$ 323,969	\$ 256,281

CONSOLIDATED STATEMENTS OF OPERATIONS

FOR THE YEARS ENDED DEC. 31
(MILLIONS, EXCEPT PER SHARE AMOUNTS)

	Note	2019	2018
Revenues	22	\$ 67,826	\$ 56,771
Direct costs	23	(52,728)	(45,519)
Other income and gains		1,285	1,166
Equity accounted income	10	2,498	1,088
Expenses			
Interest		(7,227)	(4,854)
Corporate costs		(98)	(104)
Fair value changes	24	(831)	1,794
Depreciation and amortization		(4,876)	(3,102)
Income taxes	15	(495)	248
Net income		<u>\$ 5,354</u>	<u>\$ 7,488</u>
Net income attributable to:			
Shareholders		\$ 2,807	\$ 3,584
Non-controlling interests		2,547	3,904
		<u>\$ 5,354</u>	<u>\$ 7,488</u>
Net income per share:			
Diluted	21	\$ 2.60	\$ 3.40
Basic	21	<u>2.66</u>	<u>3.47</u>

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

FOR THE YEARS ENDED DEC. 31
(MILLIONS)

	Note	2019	2018
Net income.....		<u>\$ 5,354</u>	<u>\$ 7,488</u>
Other comprehensive income (loss)			
Items that may be reclassified to net income			
Financial contracts and power sale agreements		(52)	(20)
Marketable securities.....		75	(34)
Equity accounted investments.....	10	(37)	(29)
Foreign currency translation.....		(403)	(3,254)
Income taxes.....	15	(15)	(90)
		<u>(432)</u>	<u>(3,427)</u>
Items that will not be reclassified to net income			
Revaluations of property, plant and equipment.....	12	3,328	6,290
Revaluation of pension obligations	17	(149)	(19)
Equity accounted investments.....	10	354	547
Marketable securities.....		299	94
Income taxes.....	15	(688)	(1,324)
		<u>3,144</u>	<u>5,588</u>
Other comprehensive income		<u>2,712</u>	<u>2,161</u>
Comprehensive income		<u>\$ 8,066</u>	<u>\$ 9,649</u>
Attributable to:			
Shareholders			
Net income		\$ 2,807	\$ 3,584
Other comprehensive income.....		524	406
Comprehensive income		<u>\$ 3,331</u>	<u>\$ 3,990</u>
Non-controlling interests			
Net income		\$ 2,547	\$ 3,904
Other comprehensive income.....		2,188	1,755
Comprehensive income		<u>\$ 4,735</u>	<u>\$ 5,659</u>

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

AS AT AND FOR THE YEAR ENDED DEC. 31, 2019 (MILLIONS)	Common Share Capital	Contributed Surplus	Retained Earnings	Ownership Changes ¹	Accumulated Other Comprehensive Income			Common Equity	Preferred Equity	Non- controlling Interests	Total Equity
					Revaluation Surplus	Currency Translation	Other Reserves ²				
Balance as at December 31, 2018	\$ 4,457	\$ 271	\$ 14,244	\$ 645	\$ 7,556	\$ (1,833)	\$ 307	\$ 25,647	\$ 4,168	\$ 67,335	\$ 97,150
Changes in period:											
Net income	—	—	2,807	—	—	—	—	2,807	—	2,547	5,354
Other comprehensive income (loss)	—	—	—	—	591	(190)	123	524	—	2,188	2,712
Comprehensive income (loss)	—	—	2,807	—	591	(190)	123	3,331	—	4,735	8,066
Shareholder distributions											
Common equity	—	—	(620)	—	—	—	—	(620)	—	—	(620)
Preferred equity	—	—	(152)	—	—	—	—	(152)	—	—	(152)
Non-controlling interests	—	—	—	—	—	—	—	—	—	(8,568)	(8,568)
Other items											
Equity issuances, net of redemptions	2,848	(40)	(331)	—	—	—	—	2,477	(23)	16,636	19,090
Share-based compensation	—	55	(68)	—	—	—	—	(13)	—	—	(13)
Ownership changes	—	—	146	365	(271)	6	(48)	198	—	1,695	1,893
Total change in year	2,848	15	1,782	365	320	(184)	75	5,221	(23)	14,498	19,696
Balance as at December 31, 2019	\$ 7,305	\$ 286	\$ 16,026	\$ 1,010	\$ 7,876	\$ (2,017)	\$ 382	\$ 30,868	\$ 4,145	\$ 81,833	\$ 116,846

1. Includes gains or losses on changes in ownership interests of consolidated subsidiaries.
2. Includes changes in fair value of marketable securities, cash flow hedges, actuarial changes on pension plans and equity accounted other comprehensive income, net of associated income taxes.

AS AT AND FOR THE YEAR ENDED DEC. 31, 2018 (MILLIONS)	Common Share Capital	Contributed Surplus	Retained Earnings	Ownership Changes ¹	Accumulated Other Comprehensive Income			Total Common Equity	Preferred Equity	Non- controlling Interests	Total Equity
					Revaluation Surplus	Currency Translation	Other Reserves ²				
Balance as at December 31, 2017	\$ 4,428	\$ 263	\$ 11,864	\$ 1,459	\$ 6,881	\$ (878)	\$ 35	\$ 24,052	\$ 4,192	\$ 51,628	\$ 79,872
Changes in accounting policies ³	—	—	(215)	—	—	—	(3)	(218)	—	(84)	(302)
Adjusted balance as at January 1, 2018	4,428	263	11,649	1,459	6,881	(878)	32	23,834	4,192	51,544	79,570
Changes in period:											
Net income	—	—	3,584	—	—	—	—	3,584	—	3,904	7,488
Other comprehensive income (loss)	—	—	—	—	1,060	(959)	305	406	—	1,755	2,161
Comprehensive income (loss)	—	—	3,584	—	1,060	(959)	305	3,990	—	5,659	9,649
Shareholder distributions											
Common equity	—	—	(575)	—	—	—	—	(575)	—	—	(575)
Preferred equity	—	—	(151)	—	—	—	—	(151)	—	—	(151)
Non-controlling interests	—	—	—	—	—	—	—	—	—	(6,709)	(6,709)
Other items											
Equity issuances, net of redemptions	29	(44)	(344)	—	—	—	—	(359)	(24)	6,663	6,280
Share-based compensation	—	52	(33)	—	—	—	—	19	—	7	26
Ownership changes	—	—	114	(814)	(385)	4	(30)	(1,111)	—	10,171	9,060
Total change in year	29	8	2,595	(814)	675	(955)	275	1,813	(24)	15,791	17,580
Balance as at December 31, 2018	\$ 4,457	\$ 271	\$ 14,244	\$ 645	\$ 7,556	\$ (1,833)	\$ 307	\$ 25,647	\$ 4,168	\$ 67,335	\$ 97,150

1. Includes gains or losses on changes in ownership interests of consolidated subsidiaries.
2. Includes changes in fair value of marketable securities, cash flow hedges, actuarial changes on pension plans and equity accounted other comprehensive income, net of associated income taxes.
3. Relates to adoption of IFRS 9 *Financial Instruments* and IFRS 15 *Revenue from Contracts with Customers*.

CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DEC. 31
(MILLIONS)

	Note	2019	2018
Operating activities			
Net income.....		\$ 5,354	\$ 7,488
Other income and gains		(1,285)	(1,166)
Share of undistributed equity accounted earnings		(1,654)	(294)
Fair value changes	24	831	(1,794)
Depreciation and amortization.....		4,876	3,102
Deferred income taxes	15	(475)	(1,109)
Investments in residential inventory		(319)	258
Net change in non-cash working capital balances		(1,000)	(1,326)
		<u>6,328</u>	<u>5,159</u>
Financing activities			
Corporate borrowings arranged		992	1,090
Corporate borrowings repaid		(450)	—
Commercial paper and bank borrowings, net		—	(103)
Non-recourse borrowings arranged		64,576	43,541
Non-recourse borrowings repaid		(42,215)	(28,243)
Non-recourse credit facilities, net		(926)	3,291
Subsidiary equity obligations issued		212	212
Subsidiary equity obligations redeemed		(45)	(485)
Capital provided from non-controlling interests.....		19,447	9,306
Capital repaid to non-controlling interests		(2,811)	(2,643)
Repayment of lease liabilities.....		(424)	—
Preferred equity redemptions.....		(16)	(17)
Common shares issued		13	11
Common shares repurchased		(267)	(389)
Distributions to non-controlling interests		(8,568)	(6,709)
Distributions to shareholders		(772)	(726)
		<u>28,746</u>	<u>18,136</u>
Investing activities			
Acquisitions			
Investment properties		(6,921)	(2,879)
Property, plant and equipment		(3,053)	(1,962)
Equity accounted investments.....		(5,534)	(953)
Financial assets and other		(10,830)	(5,288)
Acquisition of subsidiaries		(31,088)	(22,269)
Dispositions			
Investment properties		5,239	4,311
Property, plant and equipment		140	787
Equity accounted investments.....		1,725	2,163
Financial assets and other		10,850	4,523
Disposition of subsidiaries		2,336	1,729
Restricted cash and deposits		462	5
		<u>(36,674)</u>	<u>(19,833)</u>
Cash and cash equivalents			
Change in cash and cash equivalents.....		(1,600)	3,462
Net change in cash classified within assets held for sale.....		(7)	(1)
Foreign exchange revaluation.....		(5)	(210)
Balance, beginning of year		8,390	5,139
Balance, end of year		<u>\$ 6,778</u>	<u>\$ 8,390</u>
Supplemental cash flow disclosures			
Income taxes paid		\$ 504	\$ 980
Interest paid		6,323	4,712

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. CORPORATE INFORMATION

Brookfield Asset Management Inc. (the “Corporation”) is a global alternative asset management company. References in these financial statements to “Brookfield,” “us,” “we,” “our” or “the company” refer to the Corporation and its direct and indirect subsidiaries and consolidated entities. The company owns and operates assets with a focus on real estate, renewable power, infrastructure and private equity. The Corporation is listed on the New York and Toronto stock exchanges under the symbols BAM and BAM.A, respectively. The Corporation was formed by articles of amalgamation under the Business Corporations Act (Ontario) and is registered in Ontario, Canada. The registered office of the Corporation is Brookfield Place, 181 Bay Street, Suite 300, Toronto, Ontario, M5J 2T3.

2. SIGNIFICANT ACCOUNTING POLICIES

a) Statement of Compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

These financial statements were authorized for issuance by the Board of Directors of the company on March 26, 2020.

b) Adoption of Accounting Standards

The company has applied new and revised standards issued by the IASB that are effective for the period beginning on or after January 1, 2019. The new standards were applied as follows:

i. Leases

The company adopted IFRS 16 *Leases* (“IFRS 16”) effective January 1, 2019. IFRS 16 gives prescriptive guidance on the recognition, measurement, presentation and disclosure of leases. This standard supersedes IAS 17 *Leases* (“IAS 17”) and related interpretations. The company adopted the standard using a modified retrospective approach, whereby any transitional impact is recorded in equity as at January 1, 2019 and comparative periods are not restated. Please refer to the *Transition Impact* below for more information.

Under IFRS 16, the company must assess whether a contract is, or contains, a lease at inception of the contract. A contract is, or contains, a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Control exists if a customer can make the important decisions governing the use of an asset specified in a contract similar to decisions made over assets owned by the business. The company has elected to not allocate contract consideration between lease and non-lease components, but rather account for each lease and non-lease component as a single lease component. This election is made by asset class.

Accounting for lessors remains largely unchanged and the distinction between operating and finance leases is retained. For lessors, a lease shall be classified as either a finance or operating lease on commencement of the lease contract. If the contract represents a finance lease in which the risk and rewards of ownership have transferred to the lessee, a lessor shall recognize a finance lease receivable at an amount equal to the net investment in the lease discounted using the interest rate implicit in the lease. Subsequently, finance income is recognized at a constant rate on the net investment of the finance lease. Lease payments received from operating leases shall be recognized into income on a straight-line or other systematic basis.

For lessees, the distinction between operating and finance leases is eliminated. The company recognizes a right-of-use (“ROU”) asset and lease liability at the lease commencement date. The ROU asset is initially measured based on the calculated lease liability plus initial direct costs incurred by the lessee, estimates to dismantle and restore the underlying asset at the end of the lease term and lease payments made net of incentives received at or before the lease commencement date. It is classified as either investment property, property, plant and equipment (“PP&E”), or inventory depending on the nature of the asset and is subsequently accounted for consistently with owned assets within the respective asset classes with the exception of PP&E. Unlike most of the company’s owned assets within PP&E, lease assets classified within PP&E are subsequently measured applying the cost method rather than the revaluation method. The ROU asset is depreciated applying a straight-line method or other systematic basis over the shorter of the useful life of the underlying asset or the term of the lease. Lease contracts often include an option to extend the term of the lease and such extensions are factored into the lease term if the company is reasonably certain to exercise that option. ROU assets are tested for impairment in accordance with IAS 36 *Impairment of Assets*. Refer to section (d) below for additional details of our accounting policies governing investment property, PP&E and inventory.

Lease liabilities are classified within accounts payable and other and are recognized at the commencement of the lease, initially measured at the present value of future lease payments not paid as at the commencement date, discounted using the interest rate implicit in the lease, or the lessee's incremental borrowing rate if the implicit rate cannot be readily determined. Lease liabilities are subsequently measured at amortized cost by applying the effective interest method. Lease liabilities are remeasured if there is reassessment of the timing or amount of future lease payments arising from a change in an index or rate, revisions to estimates of the lease term or residual value guarantee, or a change in the assessment of an option to purchase the underlying asset. Such remeasurements of the lease liability are generally recognized as an adjustment to the ROU asset unless further reduction in the measurement of the lease liability would reduce a ROU asset below zero in which case it is recorded in the Consolidated Statements of Operations.

We are applying certain practical expedients as permitted by the standard; specifically, we have elected to apply practical expedients associated with short-term and low-value leases that allow the company to record operating expenses on such leases on a straight-line basis without having to capitalize the lease arrangement. In addition, as required by the standard, variable lease payments that are not dependent on an index or rate are expensed as incurred.

We have also applied a number of critical judgments in applying this standard, including: i) identifying whether a contract (or part of a contract) includes a lease; ii) determining whether it is reasonably certain that lease extension or termination options will be exercised in determining the lease term; and iii) determining whether variable payments are in-substance fixed. Critical estimates used in the application of IFRS 16 include estimating the lease term and determining the appropriate rate at which to discount the lease payments.

Transition Impact

The company adopted IFRS 16 using the modified retrospective approach, whereby any transitional impact is recorded in equity as at January 1, 2019, and comparative periods are not restated and comply with the legacy IAS 17 and related standards.

The company has measured the opening ROU assets at an amount equal to the corresponding lease liabilities, adjusted by any prepaid or accrued lease payments relating to that lease recognized prior to the adoption. In addition, the company has applied certain transition expedients as permitted by the standard, including the application of a single discount rate to a portfolio of leases with reasonably similar characteristics, adjusting the ROU assets by the amount of any provision for onerous leases recognized under IAS 37 and accounting for leases with remaining terms of less than 12 months as of January 1, 2019, regardless of the full life of the lease, as short-term leases. There are no adjustments to opening equity.

The difference between the operating lease commitments disclosed applying IAS 17 as at December 31, 2018 and the amount recorded as a transition adjustment relates primarily to the impact of discounting the future lease payments to their present value using incremental borrowing rates, short-term and low-value leases which are expensed as incurred, adjustments as a result of different treatment for extension and termination options and variable lease payments relating to changes in indices or rates. The weighted-average incremental borrowing rate as at January 1, 2019 used to measure lease liabilities is approximately 5%.

The impact of adopting IFRS 16 on our balance sheet is as follows:

(MILLIONS)	Balance at Dec. 31, 2018	IFRS 16 Adjustments	Balance at Jan. 1, 2019
Assets			
Inventory	\$ 6,989	\$ 22	\$ 7,011
Investment properties	84,309	928	85,237
Property, plant and equipment	67,294	3,416	70,710
Other assets	97,689	—	97,689
Total assets	<u>\$ 256,281</u>	<u>\$ 4,366</u>	<u>\$ 260,647</u>
Liabilities			
Accounts payable and other	\$ 23,989	\$ 4,366	\$ 28,355
Other liabilities	135,142	—	135,142
Total liabilities	<u>159,131</u>	<u>4,366</u>	<u>163,497</u>
Equity			
Preferred equity	4,168	—	4,168
Non-controlling interests	67,335	—	67,335
Common equity	25,647	—	25,647
Total equity	<u>97,150</u>	<u>—</u>	<u>97,150</u>
Total liabilities and equity	<u>\$ 256,281</u>	<u>\$ 4,366</u>	<u>\$ 260,647</u>

The company recognized ROU assets and lease liabilities of approximately \$4.4 billion as at January 1, 2019. The changes relate primarily to:

- investment property ground leases of \$928 million on certain buildings classified as investment properties within our Real Estate segment; and
- leases of ROU property, plant and equipment of \$3.4 billion across our operating segments, including wind farm ground leases in our renewable power operations, ports in our infrastructure operations, hospitality assets in our real estate operations, fuel tanks and other equipment leases in certain of our private equity operations as well as various corporate office leases.

Included in our interest expense for the year ended December 31, 2019 was \$206 million related to interest on lease liabilities. We also reported depreciation of \$459 million on our ROU assets as well as \$63 million of fair value gains on ROU investment properties.

ii. Uncertainty Over Income Tax Treatments

In June 2017, the IASB published IFRIC 23 *Uncertainty over Income Tax Treatments* (“IFRIC 23”), effective for annual periods beginning on or after January 1, 2019. The interpretation requires an entity to assess whether it is probable that a tax authority will accept an uncertain tax treatment used, or proposed to be used, by an entity in its income tax filings and to exercise judgment in determining whether each tax treatment should be considered independently or whether some tax treatments should be considered together. The decision should be based on which approach provides better predictions of the resolution of the uncertainty. An entity also has to consider whether it is probable that the relevant authority will accept each tax treatment, or group of tax treatments, assuming that the taxation authority with the right to examine any amounts reported to it will examine those amounts and will have full knowledge of all relevant information when doing so. The interpretation has been applied on a modified retrospective basis without restatement of comparative information. There was no material impact on the company’s 2019 consolidated financial statements.

iii. Business Combinations

In October 2018, the IASB issued an amendment to IFRS 3 *Business Combinations* (“IFRS 3”), effective for annual periods beginning on or after January 1, 2020 with early adoption permitted. The amendment clarifies that a business must include, at minimum, an input and a substantive process that together contribute to the ability to create outputs, and assists companies in determining whether an acquisition is a business combination or an acquisition of a group of assets by providing supplemental guidance for assessing whether an acquired process is substantive. The company has decided to early adopt the amendments to IFRS 3 effective January 1, 2019 and applied the amended standard in assessing business combinations on a prospective basis. For acquisitions that are determined to be acquisitions of assets as opposed to business combinations, the company allocates the transaction price to the individual identifiable assets acquired and liabilities assumed on the basis of their relative fair values, and no goodwill is recognized. Acquisitions that continue to meet the definition of a business combination are accounted for under the acquisition method, without any changes to the company’s accounting policy. There was no material impact on the company’s 2019 consolidated financial statements.

iv. Interest Rate Benchmark Reform

The company adopted Interest Rate Benchmark Reform – Amendments to IFRS 9 and IFRS 7, issued in September 2019, (“IBOR Amendments”) effective October 1, 2019 in advance of its mandatory effective date. The IBOR Amendments have been applied retrospectively to hedging relationships existing at October 1, 2019 or were designated subsequently, and to the amount accumulated in the cash flow hedge reserve at that date. The IBOR Amendments provide temporary relief from applying specific hedge accounting requirements to the company’s hedging relationships which are directly affected by IBOR reform, which primarily include US\$ LIBOR, £ LIBOR, and € EURIBOR. The reliefs have the effect that IBOR reform should not generally cause hedge accounting to terminate. In assessing whether a hedge is expected to be highly effective on a forward-looking basis, the company assumes the interest rate benchmark on which the cash flows of the derivative which hedges borrowings is not altered by IBOR reform. These reliefs cease to apply to a hedged item or hedging instrument as applicable at the earlier of: (i) when the uncertainty arising from IBOR reform is no longer present with respect to the timing and amount of the interest rate benchmark-based future cash flows; and (ii) when the hedging relationship is discontinued. There was no material impact on the company’s 2019 consolidated financial statements.

It is currently expected that Secured Overnight Financing Rate (“SOFR”) will replace US\$ LIBOR, Sterling Overnight Index Average (“SONIA”) will replace £ LIBOR, and Euro Short-term Rate (“€STR”) will replace EURIBOR. All of these are expected to become effective prior to December 31, 2021. The company is currently finalizing and implementing its transition plan to address the impact and effect changes as a result of amendments to the contractual terms of IBOR referenced floating-rate borrowings, interest rate swaps, and interest rate caps.

c) Future Changes in Accounting Standards

i. Insurance Contracts

In May 2017, the IASB published IFRS 17, *Insurance Contracts* (“IFRS 17”), which establishes principles for the recognition, measurement, presentation and disclosure of insurance contracts. IFRS 17 will replace IFRS 4, *Insurance Contracts*. In November 2018, the IASB proposed to defer the effective date of IFRS 17 for insurers that elected the temporary exemption to be annual periods beginning on or after January 1, 2022. IFRS 17 requires insurance contract liabilities to be measured at a current fulfillment value and provides a more uniform measurement and presentation approach for all insurance contracts.

The company is currently assessing the impact of IFRS 17 on its operations.

d) Basis of Presentation

The consolidated financial statements are prepared on a going concern basis.

i. Subsidiaries

The consolidated financial statements include the accounts of the company and its subsidiaries, which are the entities over which the company exercises control. Control exists when the company is able to exercise power over the investee, is exposed to variable returns from its involvement with the investee and has the ability to use its power over the investee to affect the amount of its returns. Subsidiaries are consolidated from the date control is obtained and continue to be consolidated until the date when control is lost. The company includes 100% of its subsidiaries’ revenues and expenses in the Consolidated Statements of Operations and 100% of its subsidiaries’ assets and liabilities on the Consolidated Balance Sheets, with non-controlling interests in the equity of the company’s subsidiaries included within the company’s equity. All intercompany balances, transactions, unrealized gains and losses are eliminated in full.

The company continually reassesses whether or not it controls an investee, particularly if facts and circumstances indicate there is a change to one or more of the control criteria previously mentioned. In certain circumstances when the company has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The company considers all relevant facts and circumstances in assessing whether or not the company's voting rights are sufficient to give it control of an investee.

Certain of the company's subsidiaries are subject to profit sharing arrangements, such as carried interest, between the company and the non-controlling equity holders, whereby the company is entitled to a participation in profits, as determined under the agreements. The attribution of net income amongst equity holders in these subsidiaries reflects the impact of these profit sharing arrangements when the attribution of profits as determined in the agreement is no longer subject to adjustment based on future events and correspondingly reduces non-controlling interests' attributable share of those profits.

Gains or losses resulting from changes in the company's ownership interest of a subsidiary that do not result in a loss of control are accounted for as equity transactions and are recorded within ownership changes as a component of equity. When we dispose of all or part of a subsidiary resulting in a loss of control, the difference between the carrying value of what is sold and the proceeds from disposition is recognized within other income and gains in the Consolidated Statements of Operations.

Refer to Note 2(r) for an explanation of the company's accounting policy for business combinations and to Note 4 for additional information on subsidiaries of the company with significant non-controlling interests.

ii. Associates and Joint Ventures

Associates are entities over which the company exercises significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but without control or joint control over those policies. Joint ventures are joint arrangements whereby the parties that have joint control of the arrangement have the rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control over an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. The company accounts for associates and joint ventures using the equity method of accounting within equity accounted investments on the Consolidated Balance Sheets.

Interests in associates and joint ventures accounted for using the equity method are initially recognized at cost. At the time of initial recognition, if the cost of the associate or joint venture is lower than the proportionate share of the investment's underlying fair value, the company records a gain on the difference between the cost and the underlying fair value of the investment in net income. If the cost of the associate or joint venture is greater than the company's proportionate share of the underlying fair value, goodwill relating to the associate or joint venture is included in the carrying amount of the investment. Subsequent to initial recognition, the carrying value of the company's interest in an associate or joint venture is adjusted for the company's share of comprehensive income and distributions of the investee. Profit and losses resulting from transactions with an associate or joint venture are recognized in the consolidated financial statements based on the interests of unrelated investors in the investee. The carrying value of associates or joint ventures is assessed for impairment at each balance sheet date. Impairment losses on equity accounted investments may be subsequently reversed in net income. Further information on the impairment of long-lived assets is available in Note 2(m).

iii. Joint Operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, related to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement which exists only when decisions about the relevant activities require unanimous consent of parties sharing control. The company recognizes only its assets, liabilities and share of the results of operations of the joint operation. The assets, liabilities and results of joint operations are included within the respective line items of the Consolidated Balance Sheets, Consolidated Statements of Operations and Consolidated Statements of Comprehensive Income.

e) Foreign Currency Translation

The U.S. dollar is the functional and presentation currency of the company. Each of the company's subsidiaries, associates, joint ventures and joint operations determines its own functional currency and items included in the consolidated financial statements of each subsidiary, associate, joint venture and joint operation are measured using that functional currency.

Assets and liabilities of foreign operations having a functional currency other than the U.S. dollar are translated at the rate of exchange prevailing at the reporting date and revenues and expenses at average rates during the period. Gains or losses on translation are accumulated as a component of equity. On the disposal of a foreign operation, or the loss of control, joint control or significant influence, the component of accumulated other comprehensive income relating to that foreign operation is reclassified to net income. Gains or losses on foreign currency denominated balances and transactions that are designated as hedges of net investments in these operations are reported in the same manner.

Foreign currency denominated monetary assets and liabilities of the company are translated using the rate of exchange prevailing at the reporting date and non-monetary assets and liabilities measured at fair value are translated at the rate of exchange prevailing at the date when the fair value was determined. Revenues and expenses are measured at average rates during the period. Gains or losses on translation of these items are included in net income. Gains or losses on transactions which hedge these items are also included in net income. Foreign currency denominated non-monetary assets and liabilities, measured at historic cost, are translated at the rate of exchange at the transaction date.

f) Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, demand deposits and highly liquid short-term investments with original maturities of three months or less.

g) Related Party Transactions

In the normal course of operations, the company enters into various transactions on market terms with related parties. The majority of transactions with related parties are between consolidated entities and eliminate on consolidation. The company and its subsidiaries may also transact with entities over which the company has significant influence or joint control. Amounts owed to and by associates and joint ventures are not eliminated on consolidation. The company's subsidiaries with significant non-controlling interests are described in Note 4 and its associates and joint ventures are described in Note 10.

In addition to our subsidiaries and equity accounted investments, we consider key management personnel, the Board of Directors and material shareholders to be related parties. See additional details in Note 28.

h) Operating Assets

i. Investment Properties

The company uses the fair value method to account for real estate classified as investment properties. A property is determined to be an investment property when it is principally held either to earn rental income or for capital appreciation, or both. Investment properties also include properties that are under development or redevelopment for future use as investment property. Investment properties are initially measured at cost including transaction costs, or at fair value if acquired in a business combination. Subsequent to initial recognition, investment properties are carried at fair value. Gains or losses arising from changes in fair value are included in net income during the period in which they arise.

Fair values are completed by undertaking one of two accepted approaches: (i) discounting the expected future cash flows, generally over a term of 10 years including a terminal value based on the application of a capitalization rate to estimated year 11 net operating income, typically used for our office, retail and logistics assets; or (ii) undertaking a direct capitalization approach for certain of our LP investments and directly held multifamily assets whereby a capitalization rate is applied to estimated stabilized annual net operating income. The future cash flows of each property are based upon, among other things, rental income from current leases and assumptions about rental income from future leases reflecting current conditions, less future cash outflows relating to such current and future leases.

Commercial developments are also measured using a discounted cash flow model, net of costs to complete, as of the balance sheet date. Development sites in the planning phases are carried at cost.

ii. Property, Plant and Equipment

The company uses the revaluation method of accounting for certain classes of property, plant and equipment as well as certain assets which are under development for future use as property, plant and equipment. Property, plant and equipment measured using the revaluation method is initially measured at cost, or at fair value if acquired in a business combination, and subsequently carried at its revalued amount, being the fair value at the date of the revaluation less any subsequent accumulated depreciation and any accumulated impairment losses. Revaluations are performed on an annual basis at the end of each fiscal year, commencing in the first year subsequent to the date of acquisition, unless there is an indication that assets are impaired. Where the carrying amount of an asset increases as a result of a revaluation, the increase is recognized in other comprehensive income and accumulated in equity in revaluation surplus, unless the increase reverses a previously recognized revaluation loss recorded through net income, in which case that portion of the increase is recognized in net income.

Where the carrying amount of an asset decreases, the decrease is recognized in other comprehensive income to the extent of any balance existing in revaluation surplus in respect of the asset, with the remainder of the decrease recognized in net income. Depreciation of an asset commences when it is available for use. On loss of control or partial disposition of an asset measured using the revaluation method, all accumulated revaluation surplus or the portion disposed of, respectively, is transferred into retained earnings or ownership changes, respectively.

Property, plant and equipment held in our Private Equity segment is measured at cost. Land is carried at cost whereas finite-life assets such as buildings and equipment are carried at cost less accumulated depreciation and accumulated impairment losses, if any. Depreciation is calculated on a systematic basis over the assets' useful life.

Depreciation methods and useful lives are reassessed at least annually regardless of the measurement method used.

Renewable Power

Renewable power generating assets, including assets under development, are classified as property, plant and equipment and are accounted for using the revaluation method. The company determines the fair value of its renewable power generating assets using discounted cash flow analysis, which includes estimates of forecasted revenue, operating costs, maintenance and other capital expenditures. Discount rates are selected for each facility giving consideration to the expected proportion of contracted to uncontracted revenue and markets into which power is sold.

For perpetual assets, such as many of our hydroelectric facilities, the first 20 years of cash flow are discounted with a residual value based on the terminal value cash flows. For assets with finite lives, which include wind and solar farms, the company discounts projected cash flows over the assets' estimated remaining service lives. The fair value and estimated remaining service lives are reassessed on an annual basis.

Depreciation on renewable power generating assets is calculated on a straight-line basis over the estimated service lives of the assets, which are as follows:

(YEARS)	Useful Lives
Dams	Up to 115
Penstocks	Up to 60
Powerhouses	Up to 115
Hydroelectric generating units	Up to 115
Wind generating units	Up to 41
Solar generating units	Up to 30
Gas-fired cogenerating ("Cogeneration") units	Up to 40
Other assets	Up to 60

Cost is allocated to the significant components of power generating assets and each component is depreciated separately.

The depreciation of property, plant and equipment in our Brazilian renewable power operations is based on the duration of the authorization or the useful life of a concession. The weighted-average remaining duration at December 31, 2019 is 32 years (2018 – 29 years). Land rights are included as part of the concession or authorization and are subject to depreciation.

Infrastructure

Utilities, transport, communication and energy assets within our infrastructure operations as well as assets under development classified as property, plant and equipment on the Consolidated Balance Sheets are accounted for using the revaluation method. The company determines the fair value of its utilities, transport, energy and data infrastructure assets using discounted cash flow analyses, which include estimates of forecasted revenue, operating costs, maintenance and other capital expenditures. Valuations are performed internally on an annual basis. Discount rates are selected for each asset, giving consideration to the volatility and geography of its revenue streams.

Depreciation on utilities, transport, energy and data infrastructure assets is calculated on a straight-line or declining balance basis over the estimated service lives of the components of the assets, which are as follows:

(YEARS)	Useful Lives
Buildings.....	Up to 75
Transmission stations, towers and related fixtures	Up to 40
Leasehold improvements	Up to 50
Plant and equipment.....	Up to 40
Network systems.....	Up to 65
Track	Up to 40
District energy systems	Up to 50
Gas storage assets	Up to 50

The fair value and the estimated remaining service lives are reassessed annually.

Public service concessions that provide the right to charge users for a service in which the service and fee is regulated by the grantor are accounted for as intangible assets.

In our sustainable resources operations, land used in the production of standing timber, as well as bridges and roads used in sustainable resources production, are accounted for using the revaluation method and included in property, plant and equipment. Bridges, roads and equipment are depreciated over their useful lives, generally 3 to 30 years.

Real Estate – Hospitality Assets

Hospitality operating assets within our real estate operations are classified as property, plant and equipment and are accounted for using the revaluation method. The company determines the fair value for these assets by using a depreciated replacement cost method based on the age, physical condition and the construction costs of the assets. Fair value of hospitality properties are also reviewed in reference to each hospitality asset's enterprise value which is determined using a discounted cash flow model.

Depreciation on hospitality assets is calculated on a straight-line basis over the estimated useful lives of each component of the asset as follows:

(YEARS)	Useful Lives
Building and building improvements	5 to 60
Land improvements	14 to 15
Furniture, fixtures and equipment.....	2 to 15

Private Equity

The company accounts for its private equity property, plant and equipment using the cost model. Costs include expenditures that are directly attributable to the acquisition of the asset. Depreciation of an asset commences when it is available for use. PP&E is depreciated for each component of the following asset classes as follows:

On a straight-line basis (YEARS)	Useful Lives
Buildings.....	Up to 50
Leasehold improvements	Up to 40
Machinery and equipment	Up to 20
Vessels.....	Up to 35
Not on a straight-line basis	Useful Lives
Oil and gas related equipment	Units of production

iii. Inventory

Private Equity

Fuel inventories within our Private Equity segment are traded in active markets and are purchased with the view to resell in the near future, generating a profit from fluctuations in prices or margins. As a result, fuel inventories are carried at market value by reference to prices in a quoted active market, in accordance with the commodity broker-trader exemption granted by IAS 2, *Inventories*. Changes in fair value less costs to sell are recognized in direct costs. Fuel products that are held for extended periods in order to benefit from future anticipated increases in fuel prices or located in territories where no active market exists are recognized at the lower of cost and net realizable value. Products and chemicals used in the production of biofuels are valued at the lower of cost and net realizable value.

Real Estate

Residential development lots, homes and residential condominium projects are recorded in inventory. Residential development lots are recorded at the lower of cost, which includes pre-development expenditures and capitalized borrowing costs and net realizable value, which the company determines as the estimated selling price of the inventory in the ordinary course of business in its completed state, less estimated expenses, including holding costs, costs to complete and costs to sell.

Homes and other properties held for sale, which include properties subject to sale agreements, are recorded at the lower of cost and net realizable value in inventory. Costs are allocated to the salable acreage of each project or subdivision in proportion to the anticipated revenue.

Residential Development

Inventories consist of land held for development, land under development, homes under construction, completed homes and model homes. In addition to direct land acquisitions, land development and improvement costs and home construction costs, costs also include interest, real estate taxes and direct overhead related to development and construction, which are capitalized to inventory during the period beginning with the commencement of development and ending with the completion of construction or development. Indirect costs are allocated to homes or lots based on the number of units in a community.

Land and housing assets are recorded at the lower of cost and net realizable value, which the company determines as the estimated selling price of the inventory in the ordinary course of business in its completed state, less estimated expenses, including holding costs, costs to complete and costs to sell.

i) Fair Value Measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the company takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date.

Fair value measurement is disaggregated into three hierarchical levels: Level 1, 2 or 3. Fair value hierarchical levels are directly based on the degree to which the inputs to the fair value measurement are observable. The levels are as follows:

Level 1 – Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2 – Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the asset or liability's anticipated life.

Level 3 – Inputs are unobservable and reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs in determining the estimate.

Refer to the investment properties and revaluation of property, plant and equipment explanations for the approach taken to determine the fair value of these operating assets.

Further information on fair value measurements is available in Notes 6, 7, 11 and 12.

j) Accounts Receivable

Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less an allowance for expected credit losses for uncollectability.

k) Intangible Assets

Finite life intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses and are amortized on a straight-line basis over their estimated useful lives. Amortization is recorded within depreciation and amortization in the Consolidated Statements of Operations.

Certain of the company's intangible assets have an indefinite life as there is no foreseeable limit to the period over which the asset is expected to generate cash flows. Indefinite life intangible assets are recorded at cost unless an impairment is identified which requires a write-down to its recoverable amount.

Indefinite life intangible assets are evaluated for impairment annually or more often if events or circumstances indicate there may be an impairment. Any impairment of the company's indefinite life intangible assets is recorded in net income in the period in which the impairment is identified. Impairment losses on intangible assets may be subsequently reversed in net income.

Infrastructure

Intangible assets within our Infrastructure segment primarily consist of service concession arrangements that are accounted for as intangible assets under IFRIC 12, *Service Concession Arrangements* ("IFRIC 12"). Concession arrangements were mostly acquired through acquisitions of gas transmission, electricity transmission and toll road businesses and are amortized on a straight-line basis over the term of the arrangement.

The intangible asset at the Australian regulated terminal operation relates to use of a specific steel and coal port terminal for a contractual length of time and is amortized over the life of the contractual arrangement with 81 years remaining on a straight-line basis. The intangible assets at the Brazilian regulated gas transmission operation relate to pipeline concession contracts, amortized on a straight-line basis over the life of the contractual arrangement. The intangible assets at the Brazilian electricity transmission operation relate to electricity transmission line concession contracts, amortized on a straight-line basis over the life of the contractual agreement. The intangible assets at the Chilean, Indian and Peruvian toll roads relate to the right to operate a road and charge users a specified tariff for a contractual length of time and is amortized over the life of the contractual arrangement with an average of 14, 17 and 23 years remaining, respectively.

Refer to Note 13 of the consolidated financial statements for additional information on these concession arrangements.

The intangible assets at our residential infrastructure operation comprise contractual customer relationships, customer contracts, proprietary technology and brands. The contractual customer relationships and customer contracts represent ongoing economic benefits from leasing customers and annuity-based management agreements. Proprietary technology is recognized for the development of new metering technology, which allows the business to generate revenue through its sub-metering business. Brands represent the intrinsic value customers place on the operation's various brand names. Brands are classified as having an indefinite life and are subject to annual impairment reviews. The remaining intangible assets are amortized straight-line over 10 to 20 years.

Private Equity

Our private equity operations include intangible assets across a number of operating companies. The majority are finite life intangibles with the following useful lives:

(YEARS)	Useful Lives
Water and sewage concession agreements.....	Up to 40
Brand names	Up to 20
Computer software.....	Up to 10
Customer relationships	Up to 30
Value of insurance contracts acquired	Up to 15
Patents and trademarks	Up to 40
Proprietary technology.....	Up to 20
Product development costs	Up to 5
Distribution networks	Up to 25
Loyalty program	Up to 15

Real Estate

Intangible assets in our Real Estate segment are primarily trademarks associated with hospitality assets. These assets have indefinite lives.

l) Goodwill

Goodwill represents the excess of the price paid for the acquisition of an entity over the fair value of the net identifiable tangible and intangible assets and liabilities acquired. Goodwill is allocated to the cash-generating unit to which it relates. The company identifies cash-generating units as identifiable groups of assets that are largely independent of the cash inflows from other assets or groups of assets.

Goodwill is evaluated for impairment annually or more often if events or circumstances indicate there may be an impairment. Impairment is determined for goodwill by assessing if the carrying value of a cash-generating unit, including the allocated goodwill, exceeds its recoverable amount determined as the greater of the estimated fair value less costs to sell and the value in use. Impairment losses recognized in respect of a cash-generating unit are first allocated to the carrying value of goodwill and any excess is allocated to the carrying amount of assets in the cash-generating unit. Any goodwill impairment is recorded in income in the period in which the impairment is identified. Impairment losses on goodwill are not subsequently reversed. On disposal of a subsidiary, any attributable amount of goodwill is included in determination of the gain or loss on disposal.

m) Impairment of Long-Lived Assets

At each balance sheet date or more often if events or circumstances indicate there may be impairment, the company assesses whether its assets, other than those measured at fair value with changes in value recorded in net income, have any indication of impairment. An impairment is recognized if the recoverable amount, determined as the higher of the estimated fair value less costs of disposal and the discounted future cash flows generated from use and eventual disposal from an asset or cash-generating unit, is less than their carrying value. Impairment losses are recorded as fair value changes within the Consolidated Statements of Operations. The projections of future cash flows take into account the relevant operating plans and management's best estimate of the most probable set of conditions anticipated to prevail. Where an impairment loss subsequently reverses, the carrying amount of the asset or cash-generating unit is increased to the lesser of the revised estimate of its recoverable amount and the carrying amount that would have been recorded had no impairment loss been recognized previously.

n) Subsidiary Equity Obligations

Subsidiary equity obligations include subsidiary preferred equity units, subsidiary preferred shares and capital securities as well as limited-life funds and redeemable fund units.

Subsidiary preferred equity units and capital securities are preferred shares that may be settled by a variable number of common equity units upon their conversion by the holders or the company. These instruments, as well as the related accrued distributions, are classified as liabilities at amortized cost on the Consolidated Balance Sheets. Dividends or yield distributions on these instruments are recorded as interest expense. To the extent conversion features are not closely related to the underlying liability the instruments are bifurcated into debt and equity components.

Limited-life funds represent the interests of others in the company's consolidated funds that have a defined maximum fixed life where the company has an obligation to distribute the residual interests of the fund to fund partners based on their proportionate share of the fund's equity in the form of cash or other financial assets at cessation of the fund's life.

Redeemable fund units represent interests of others in consolidated subsidiaries that have a redemption feature that requires the company to deliver cash or other financial assets to the holders of the units upon receiving a redemption notice.

Limited-life funds and redeemable fund units are classified as liabilities and recorded at fair value within subsidiary equity obligations on the Consolidated Balance Sheets. Changes in the fair value are recorded in net income in the period of the change.

o) Revenue from Contracts with Customers

IFRS 15 *Revenue from Contracts with Customers* ("IFRS 15"), specifies how and when revenue should be recognized and requires disclosures about the nature, amount, timing and uncertainty of revenues and cash flows arising from customer contracts.

Where available, the company has elected the practical expedient available under IFRS 15 for measuring progress toward complete satisfaction of a performance obligation and for disclosure requirements of remaining performance obligations. This permits the company to recognize revenue in the amount to which we have the right to invoice such that the company has a right to the consideration in an amount that corresponds directly with the value to the customer for performance completed to date.

Revenue Recognition Policies by Segment

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. A performance obligation is a promise in a contract to transfer a distinct good or service (or a bundle of goods and services) to the customer and is the unit of account in IFRS 15. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue, as, or when, the performance obligation is satisfied. The company recognizes revenue when it transfers control of a product or service to a customer.

The company recognizes revenue from the following major sources:

Asset Management

The company's primary asset management revenue streams, which include base management fees, incentive fees (including incentive distributions and performance fees) and realized carried interest, are satisfied over time. A significant portion of our asset management revenue is inter-segment in nature and thus eliminated on consolidation; that which survives is recorded as revenue in the Consolidated Statements of Operations.

The company earns base management fees in accordance with contractual arrangements with our long-term private funds, perpetual strategies and public securities' investment vehicles. Fees are typically equal to a percentage of fee-bearing capital within the respective fund or entity and are accrued quarterly. These fees are earned over the period of time that the management services are provided and are allocated to the distinct services provided by the company during the reporting period.

Incentive distributions and performance fees are incentive payments to reward the company for meeting or exceeding certain performance thresholds of managed entities. Incentive distributions, paid to us by our listed partnerships, are determined by contractual arrangements and represent a portion of distributions paid by the listed partnerships above a predetermined hurdle. They are accrued as revenue on the respective partnerships' distribution record dates if that hurdle has been achieved. BBU pays performance fees if the growth in its unit price exceeds a predetermined threshold, with the unit price based on the quarterly volume-weighted average price of publicly traded units. These fees are accrued on a quarterly basis subject to the performance of the listed vehicle.

Carried interest is a performance fee arrangement in which we receive a percentage of investment returns, generated within a private fund on carry eligible capital, based on a contractual formula. We are eligible to earn carried interest from a fund once returns exceed the fund's contractually defined performance hurdles at which point we earn an accelerated percentage of the additional fund profit until we have earned the percentage of total fund profit, net of fees and expenses, to which we are entitled. We defer recognition of carried interest as revenue until the fund's cumulative returns exceed its preferred returns and when the probability of clawback is remote, which is generally met when an underlying fund investment is profitably disposed of. Typically carried interest is not recognized as revenue until the fund is near the end of its life.

Real Estate

Revenue from hospitality operations is generated by providing accommodation, food and beverage and leisure facilities to hotel guests. Revenue from accommodation is recognized over the period that the guest stays at the hotel; food and beverage revenue as well as revenue from leisure activities is recognized when goods and services are provided.

Real estate rental income is recognized in accordance with IFRS 16, *Leases*. As the company retains substantially all the risks and benefits of ownership of its investment properties, it accounts for leases with its tenants as operating leases and begins recognizing revenue when the tenant has a right to use the leased asset. The total amount of contractual rent to be received from operating leases is recognized on a straight-line basis over the term of the lease; a straight-line or free rent receivable, as applicable, is recorded as a component of investment property representing the difference between rental revenue recorded and the contractual amount received. Percentage participating rents are recognized when tenants' specified sales targets have been met.

Renewable Power

Revenue is earned by selling electricity sourced from our power generating facilities. It is derived from the output delivered and capacity provided at rates specified under contract terms or at prevailing market rates if the sale is uncontracted. Performance obligations are satisfied over time as the customer simultaneously receives and consumes benefits as we deliver electricity and related products.

We also sell power and related products under bundled arrangements. Energy, capacity and renewable credits within power purchase agreements (“PPA”) are considered to be distinct performance obligations. A contract’s transaction price is allocated to each distinct performance obligation and recognized as revenue over time as the performance obligation is satisfied. The sale of energy and capacity are distinct goods that are substantially the same and have the same pattern of transfer as measured by the output method. Renewable credits are performance obligations satisfied at a point in time. Measurement of satisfaction and transfer of control to the customer of renewable credits in a bundled arrangement coincides with the pattern of revenue recognition of the underlying energy generation.

Infrastructure

Our infrastructure revenue is predominantly recognized over time as services are rendered. Performance obligations are satisfied based on actual usage or throughput depending on the terms of the arrangement. Contract progress is determined using a cost-to-cost input method. Any upfront payments that are separable from the recurring revenue are recognized over time for the period the services are provided.

In addition, we have certain contracts where we earn revenue at a point in time when control of the product ultimately transfers to the customer, which for our sustainable resources operations coincides with product delivery.

Private Equity

Revenue from our private equity operations primarily consists of: (i) sales of goods or products which are recognized as revenue when the product is shipped and title passes to the customer; and (ii) the provision of services which are recognized as revenue over the period of time that they are provided.

Revenue recognized over a period of time is determined using the cost-to-cost input method to measure progress towards satisfaction of the performance obligations as the work performed on the contracts creates or enhances an asset that is controlled by the customer. A contract asset is recognized as costs are incurred and reclassified to accounts receivable when invoiced. A contract liability is recognized if payments are received before work is completed. Variable consideration, such as claims, incentives and variations resulting from contract modifications, is included in the transaction price when it is highly probable that such revenue will not reverse, which is when the uncertainty associated with the variable consideration is subsequently resolved.

Residential Development

Revenue from residential land sales, sales of homes and the completion of residential condominium projects is recognized at the point in time when our performance obligations are met. Performance obligations are satisfied when we transfer title over a product to a customer and all material conditions of the sales contract have been met. If title of a property transfers but material future development is required, revenue will be delayed until the point in time at which the remaining performance obligations are satisfied.

Corporate Activities and Other

Dividend and interest income from other financial assets are recognized as revenue when declared or on an accrual basis using the effective interest method, in accordance with IFRS 9 *Financial Instruments* (“IFRS 9”).

Interest revenue from loans and notes receivable, less a provision for uncollectable amounts, is recorded on the accrual basis using the effective interest method, in accordance with IFRS 9.

p) Financial Instruments

Classification of Financial Instruments

The company classifies its financial assets as fair value through profit and loss (“FVTPL”), fair value through other comprehensive income (“FVTOCI”) and amortized cost according to the company’s business objectives for managing the financial assets and based on the contractual cash flow characteristics of the financial assets. The company classifies its financial liabilities as amortized cost or FVTPL.

- Financial instruments that are not held for the sole purpose of collecting contractual cash flows are classified as FVTPL and are initially recognized at their fair value and are subsequently measured at fair value at each reporting date. Gains and losses recorded on each revaluation date are recognized within net earnings. Transaction costs of financial assets classified as FVTPL are expensed in profit or loss.

- Financial assets classified as FVTOCI are initially recognized at their fair value and are subsequently measured at fair value at each reporting date. The cumulative gains or losses related to FVTOCI equity instruments are not reclassified to profit or loss on disposal, whereas the cumulative gains or losses on all other FVTOCI assets are reclassified to profit or loss on disposal, when there is a significant or prolonged decline in fair value or when the company acquires a controlling or significant interest in the underlying investment and commences equity accounting or consolidating the investment. The cumulative gains or losses on all FVTOCI liabilities are reclassified to profit or loss on disposal.
- Financial instruments that are held for the purpose of collecting contractual cash flows that are solely payments of principal and interest are classified as amortized cost and are initially recognized at their fair value and are subsequently measured at amortized cost using the effective interest rate method. Transaction costs of financial instruments classified as amortized cost are capitalized and amortized in profit or loss on the same basis as the financial instrument.

Expected credit losses associated with debt instruments carried at amortized cost and FVOCI are assessed on a forward-looking basis. The impairment methodology applied depends on whether there has been a significant increase in credit risk since initial recognition. Impairment charges are recognized in profit or loss based on the expected credit loss model.

The following table presents the types of financial instruments held by the company within each financial instrument classification:

Financial Instrument Type	Measurement
Financial Assets	
Cash and cash equivalents	Amortized cost
Other financial assets	
Government bonds	FVTPL, FVTOCI
Corporate bonds	FVTPL, FVTOCI
Fixed income securities and other	FVTPL, FVTOCI
Common shares and warrants	FVTPL, FVTOCI
Loan and notes receivable	FVTPL, Amortized cost
Accounts receivable and other ¹	FVTPL, FVTOCI, Amortized cost
Financial Liabilities	
Corporate borrowings	Amortized cost
Property-specific borrowings	Amortized cost
Subsidiary borrowings	Amortized cost
Accounts payable and other ¹	FVTPL, Amortized cost
Subsidiary equity obligations	FVTPL, Amortized cost

1. Includes derivative instruments.

Other Financial Assets

Other financial assets are recognized on their trade date and initially recorded at fair value with changes in fair value recorded in net income or other comprehensive income in accordance with their classification. Fair values of financial instruments are determined by reference to quoted bid or ask prices, as appropriate. Where bid and ask prices are unavailable, the closing price of the most recent transaction of that instrument is used.

Other financial assets also include loans and notes receivable which are recorded initially at fair value and, with the exception of loans and notes receivable designated as FVTPL, are subsequently measured at amortized cost using the effective interest method, less any applicable provision for impairment. A provision for impairment is established when there is objective evidence that the company will not be able to collect all amounts due according to the original terms of the receivables. Loans and receivables designated as FVTPL are recorded at fair value, with changes in fair value recorded in net income in the period in which they arise.

Allowance for Credit Losses

For financial assets classified as amortized cost or debt instruments as FVTOCI, at each reporting period, the company assesses if there has been a significant increase in credit risk since the asset was originated to determine if a 12-month expected credit loss or a life-time expected credit loss should be recorded regardless of whether there has been an actual loss event. The company uses unbiased, probability-weighted loss scenarios which consider multiple loss scenarios based on reasonable and supportable forecasts in order to calculate the expected credit losses.

The company assesses the carrying value of FVTOCI and amortized cost securities for impairment when there is objective evidence that the asset is impaired such as when an asset is in default. Impaired financial assets continue to record life-time expected credit losses; however interest revenue is calculated based on the net amortized carrying amount after deducting the loss allowance. When objective evidence of impairment exists, losses arising from impairment are reclassified from accumulated other comprehensive income to net income.

Derivative Financial Instruments and Hedge Accounting

The company selectively utilizes derivative financial instruments primarily to manage financial risks, including interest rate, commodity and foreign exchange risks. Derivative financial instruments are recorded at fair value within the company's consolidated financial statements. Hedge accounting is applied when the derivative is designated as a hedge of a specific exposure and there is assurance that it will continue to be effective as a hedge based on an expectation of offsetting cash flows or fair values. Hedge accounting is discontinued prospectively when the derivative no longer qualifies as a hedge or the hedging relationship is terminated. Once discontinued, the cumulative change in fair value of a derivative that was previously recorded in other comprehensive income by the application of hedge accounting is recognized in net income over the remaining term of the original hedging relationship. The assets or liabilities relating to unrealized mark-to-market gains and losses on derivative financial instruments are recorded in accounts receivable and other or accounts payable and other, respectively.

Items Classified as Hedges

Realized and unrealized gains and losses on foreign exchange contracts designated as hedges of currency risks relating to a net investment in a subsidiary or an associate are included in equity. Gains or losses are reclassified into net income in the period in which the subsidiary or associate is disposed of or to the extent that the hedges are ineffective. Where a subsidiary is partially disposed, and control is retained, any associated gains or costs are reclassified within equity to ownership changes. Derivative financial instruments that are designated as hedges to offset corresponding changes in the fair value of assets and liabilities and cash flows are measured at their estimated fair value with changes in fair value recorded in net income or as a component of equity, as applicable. Unrealized gains and losses on interest rate contracts designated as hedges of future variable interest payments are included in equity as a cash flow hedge when the interest rate risk relates to an anticipated variable interest payment. The periodic exchanges of payments on interest rate swap contracts designated as hedges of debt are recorded on an accrual basis as an adjustment to interest expense. The periodic exchanges of payments on interest rate contracts designated as hedges of future interest payments are amortized into net income over the term of the corresponding interest payments. Unrealized gains and losses on electricity contracts designated as cash flow hedges of future power generation revenue are included in equity as a cash flow hedge. The periodic exchanges of payments on power generation commodity swap contracts designated as hedges are recorded on a settlement basis as an adjustment to power generation revenue.

Items Not Classified as Hedges

Derivative financial instruments that are not designated as hedges are carried at their estimated fair value, and gains and losses arising from changes in fair value are recognized in net income in the period in which the change occurs. Realized and unrealized gains and losses on equity derivatives used to offset changes in share prices in respect of vested deferred share units and restricted share units are recorded together with the corresponding compensation expense. Realized and unrealized gains on other derivatives not designated as hedges are recorded in revenues, direct costs or corporate costs, as applicable. Realized and unrealized gains and losses on derivatives which are considered economic hedges, and where hedge accounting is not able to be elected, are recorded in fair value changes in the Consolidated Statements of Operations.

q) Income Taxes

Current income tax assets and liabilities are measured at the amount expected to be paid to tax authorities, net of recoveries, based on the tax rates and laws enacted or substantively enacted at the balance sheet date. Current and deferred income tax relating to items recognized directly in equity are also recognized in equity. Deferred income tax liabilities are provided for using the liability method on temporary differences between the tax bases and carrying amounts of assets and liabilities. Deferred income tax assets are recognized for all deductible temporary differences and for the carry forward of unused tax credits and unused tax losses, to the extent that it is probable that deductions, tax credits and tax losses can be utilized. The carrying amount of deferred income tax assets is reviewed at each balance sheet date and reduced to the extent it is no longer probable that the income tax assets will be recovered. Deferred income tax assets and liabilities are measured using the tax rates that are expected to apply to the year when the asset is realized or the liability settled, based on the tax rates and laws that have been enacted or substantively enacted at the balance sheet date.

r) Business Combinations

Business combinations are accounted for using the acquisition method. The cost of a business acquisition is measured at the aggregate of the fair values at the date of exchange of assets given, liabilities incurred or assumed, and equity instruments issued in exchange for control of the acquiree. The acquiree's identifiable assets, liabilities and contingent liabilities are recognized at their fair values at the acquisition date, except for non-current assets that are classified as held for sale which are recognized and measured at fair value less costs to sell. The interest of non-controlling shareholders in the acquiree is initially measured at the non-controlling shareholders' proportion of the net fair value of the identifiable assets, liabilities and contingent liabilities recognized.

To the extent the fair value of consideration paid exceeds the fair value of the net identifiable tangible and intangible assets, the excess is recorded as goodwill. To the extent the fair value of consideration paid is less than the fair value of net identifiable tangible and intangible assets, the excess is recognized in net income.

When a business combination is achieved in stages, previously held interests in the acquired entity are re-measured to fair value at the acquisition date, which is the date control is obtained, and the resulting gain or loss, if any, is recognized in net income, other than amounts transferred directly to retained earnings. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to net income. Transaction costs are recorded as an expense within fair value changes in the Consolidated Statements of Operations.

s) Other Items

i. Capitalized Costs

Capitalized costs related to assets under development and redevelopment include all eligible expenditures incurred in connection with the acquisition, development and construction of the asset until it is available for its intended use. These expenditures consist of costs that are directly attributable to these assets.

Borrowing costs are capitalized when such costs are directly attributable to the acquisition, construction or production of a qualifying asset. A qualifying asset is an asset that takes a substantial period of time to prepare for its intended use.

ii. Share-based Payments

The company issues share-based awards to certain employees and non-employee directors. The cost of equity-settled share-based transactions, comprised of share options, restricted shares and escrowed shares, is determined as the fair value of the award on the grant date using a fair value model. The cost of equity-settled share-based transactions is recognized as each tranche vests and is recorded in contributed surplus as a component of equity. The cost of cash-settled share-based transactions, comprised of Deferred Share Units ("DSUs") and Restricted Share Units ("RSUs"), is measured as the fair value at the grant date, and expensed on a proportionate basis consistent with the vesting features over the vesting period with the recognition of a corresponding liability. The liability is recorded as a provision within accounts payable and other and measured at each reporting date at fair value with changes in fair value recognized in net income.

iii. Provisions

A provision is a liability of uncertain timing that is recognized when the company has a present obligation as a result of a past event, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. The company's significant provisions consist of pensions and other long-term and post-employment benefits, warranties on some products or services, obligations to retire or decommission tangible long-lived assets and the cost of legal claims arising in the normal course of operations.

a. Pensions and Other Post-Employment Benefits

The company offers pension and other post-employment benefit plans to employees of certain of its subsidiaries, with certain of these subsidiaries offering defined benefit plans. Defined benefit pension expenses, which include the current year's service cost, are included in direct costs. For each defined benefit plan, we recognize the present value of our defined benefit obligations less the fair value of the plan assets as a defined benefit liability reported in accounts payable and other on our Consolidated Balance Sheets. The company's obligations under its defined benefit pension plans are determined periodically through the preparation of actuarial valuations.

b. Other Long-Term Incentive Plans

The company provides long-term incentive plans to certain employees whereby the company allocates a portion of the amounts realized through subsidiary profit-sharing agreements to its employees. The cost of these plans is recognized over the requisite service period, provided it is probable that the vesting conditions will be achieved, based on the underlying subsidiary profit sharing arrangement. The liability is recorded within accounts payable and other and measured at each reporting date with the corresponding expense recognized in direct costs.

c. Warranties, Asset Retirement, Legal and Other

Certain consolidated entities offer warranties on the sale of products or services. A provision is recorded to provide for future warranty costs based on management's best estimate of probable warranty claims.

Certain consolidated entities have legal obligations to retire tangible long-lived assets. A provision is recorded at each reporting date to provide for the estimated fair value of the asset retirement obligation upon decommissioning of the asset period.

In the normal course of operations, the company may become involved in legal proceedings. Management analyzes information about these legal matters and provides provisions for probable contingent losses, including estimated legal expenses to resolve the matters. Internal and external legal counsel are used in order to estimate the probability of an unfavorable outcome and the amount of loss.

t) Critical Estimates and Judgments

The preparation of financial statements requires management to make estimates and judgments that affect the carried amounts of certain assets and liabilities, disclosures of contingent assets and liabilities and the reported amounts of revenues and expenses recorded during the period. Actual results could differ from those estimates.

In making estimates and judgments, management relies on external information and observable conditions, where possible, supplemented by internal analysis as required. These estimates and judgments have been applied in a manner consistent with prior periods and there are no known trends, commitments, events or uncertainties that the company believes will materially affect the methodology or assumptions utilized in making estimates and judgments in these consolidated financial statements.

i. Critical Estimates

The significant estimates used in determining the recorded amount for assets and liabilities in the consolidated financial statements include the following:

a. Investment Properties

The critical assumptions and estimates used when determining the fair value of commercial properties are: discount rates and terminal capitalization rates for properties valued using a discounted cash flow model and capitalization rates for properties valued using a direct capitalization approach. Management also uses assumptions and estimates in determining expected future cash flows in discounted cash flow models and stabilized net operating income used in values determined using the direct capitalization approach. Properties under development are recorded at fair value using a discounted cash flow model which includes estimates in respect of the timing and cost to complete the development.

Further information on investment property estimates is provided in Note 11.

b. Revaluation Method for Property, Plant and Equipment

When determining the carrying value of property, plant and equipment using the revaluation method, the company uses the following critical assumptions and estimates: the timing of forecasted revenues; future sales prices and associated expenses; future sales volumes; future regulatory rates; maintenance and other capital expenditures; discount rates; terminal capitalization rates; terminal valuation dates; useful lives; and residual values. Determination of the fair value of property, plant and equipment under development includes estimates in respect of the timing and cost to complete the development.

Further information on estimates used in the revaluation method for property, plant and equipment is provided in Note 12.

c. Financial Instruments

Estimates and assumptions used in determining the fair value of financial instruments are: equity and commodity prices; future interest rates; the credit worthiness of the company relative to its counterparties; the credit risk of the company's counterparties; estimated future cash flows; the amount of the liability and equity components of compound financial instruments; discount rates and volatility utilized in option valuations.

Further information on estimates used in determining the carrying value of financial instruments is provided in Notes 6, 26 and 27.

d. Inventory

The company estimates the net realizable value of its inventory using estimates and assumptions about future development costs, costs to hold and future selling costs.

e. Sustainable Resources

The fair value of standing timber and agricultural assets is based on the following estimates and assumptions: the timing of forecasted revenues and prices; estimated selling costs; sustainable felling plans; growth assumptions; silviculture costs; discount rates; terminal capitalization rates; and terminal valuation dates.

f. Other

Other estimates and assumptions utilized in the preparation of the company's consolidated financial statements are: the assessment or determination of net recoverable amount; oil and gas reserves; depreciation and amortization rates and useful lives; estimation of recoverable amounts of cash-generating units for impairment assessments of goodwill and intangible assets; ability to utilize tax losses and other tax measurements; fair value of assets held as collateral and the percentage of completion for construction contracts.

ii. Critical Judgments

Management is required to make critical judgments when applying its accounting policies. The following judgments have the most significant effect on the consolidated financial statements:

a. Control or Level of Influence

When determining the appropriate basis of accounting for the company's investees, the company makes judgments about the degree of influence that it exerts directly or through an arrangement over the investees' relevant activities. This may include the ability to elect investee directors or appoint management. Control is obtained when the company has the power to direct the relevant investing, financing and operating decisions of an entity and does so in its capacity as principal of the operations, rather than as an agent for other investors. Operating as a principal includes having sufficient capital at risk in any investee and exposure to the variability of the returns generated as a result of the decisions of the company as principal. Judgment is used in determining the sufficiency of the capital at risk or variability of returns. In making these judgments, the company considers the ability of other investors to remove the company as a manager or general partner in a controlled partnership.

b. Investment Properties

When applying the company's accounting policy for investment properties, judgment is applied in determining whether certain costs are additions to the carrying amount of the property and, for properties under development, identifying the point at which practical completion of the property occurs and identifying the directly attributable borrowing costs to be included in the carrying value of the development property.

c. Property, Plant and Equipment

The company's accounting policy for its property, plant and equipment requires critical judgments over the assessment of carrying value, whether certain costs are additions to the carrying amount of the property, plant and equipment as opposed to repairs and maintenance, and for assets under development the identification of when the asset is capable of being used as intended and identifying the directly attributable borrowing costs to be included in the asset's carrying value.

For assets that are measured using the revaluation method, judgment is required when estimating future prices, volumes, discount and capitalization rates. Judgment is applied when determining future electricity prices considering broker quotes for the years in which there is a liquid market available and, for the subsequent years, our best estimate of electricity prices from renewable sources that would allow new entrants into the market.

d. Identifying Performance Obligations for Revenue Recognition

Management is required to identify performance obligations relating to contracts with customers at the inception of each contract. IFRS 15 requires a contract's transaction price to be allocated to each distinct performance obligation and subsequently recognized into income when, or as, the performance obligation is satisfied. Judgment is used when assessing the pattern of delivery of the product or service to determine if revenue should be recognized at a point in time or over time. For certain service contracts recognized over time, judgment is required to determine if revenue from variable consideration such as incentives, claims and variations from contract modifications has met the required probability threshold to be recognized.

Management also uses judgment to determine whether contracts for the sale of products and services have distinct performance obligations that should be accounted for separately or as a single performance obligation. Goods and services are considered distinct if: (1) a customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer; and (2) the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract.

Additional details about revenue recognition policies across our operating segments are included in Note 2(o) of the consolidated financial statements.

e. Common Control Transactions

The purchase and sale of businesses or subsidiaries between entities under common control are not specifically addressed in IFRS and accordingly, management uses judgment when determining a policy to account for such transactions taking into consideration other guidance in the IFRS framework and pronouncements of other standard-setting bodies. The company's policy is to record assets and liabilities recognized as a result of transfers of businesses or subsidiaries between entities under common control at carrying value. Differences between the carrying amount of the consideration given or received and the carrying amount of the assets and liabilities transferred are recorded directly in equity.

f. Indicators of Impairment

Judgment is applied when determining whether indicators of impairment exist when assessing the carrying values of the company's assets, including: the determination of the company's ability to hold financial assets; the estimation of a cash-generating unit's future revenues and direct costs; the determination of discount and capitalization rates; and when an asset's carrying value is above the value derived using publicly traded prices which are quoted in a liquid market.

g. Income Taxes

The company makes judgments when determining the future tax rates applicable to subsidiaries and identifying the temporary differences that relate to each subsidiary. Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply during the period when the assets are realized or the liabilities settled, using the tax rates and laws enacted or substantively enacted at the consolidated balance sheet dates. The company measures deferred income taxes associated with its investment properties based on its specific intention with respect to each asset at the end of the reporting period. Where the company has a specific intention to sell a property in the foreseeable future, deferred taxes on the building portion of an investment property are measured based on the tax consequences that would follow the disposition of the property. Otherwise, deferred taxes are measured on the basis the carrying value of the investment property will be recovered substantially through use.

h. Classification of Non-Controlling Interests in Limited-Life Funds

Non-controlling interests in limited-life funds are classified as liabilities (subsidiary equity obligations) or equity (non-controlling interests) depending on whether an obligation exists to distribute residual net assets to non-controlling interests on liquidation in the form of cash or another financial asset or assets delivered in kind. Judgment is required to determine what the governing documents of each entity require or permit in this regard.

i. Other

Other critical judgments include the determination of effectiveness of financial hedges for accounting purposes; the likelihood and timing of anticipated transactions for hedge accounting; and the determination of functional currency.

3. SEGMENTED INFORMATION

a) Operating Segments

Our operations are organized into five operating business groups in addition to our corporate and asset management activities, which collectively represent seven operating segments for internal and external reporting purposes. We measure performance primarily using funds from operations ("FFO") generated by each operating segment and the amount of capital invested by the Corporation in each segment using common equity by segment.

Our operating segments are as follows:

- i. *Asset management* operations include managing our long-term private funds, perpetual strategies and public securities on behalf of our investors and ourselves, as well as our share of the asset management activities of Oaktree Capital Management ("Oaktree"). We generate contractual base management fees for these activities as well as incentive distributions and performance income, including performance fees, transaction fees and carried interest.

- ii. *Real estate* operations include the ownership, operation and development of core office, core retail, LP investments and other properties.
- iii. *Renewable power* operations include the ownership, operation and development of hydroelectric, wind, solar, storage and other power generating facilities.
- iv. *Infrastructure* operations include the ownership, operation and development of utilities, transport, energy, data infrastructure and sustainable resource assets.
- v. *Private equity* operations include a broad range of industries, and are mostly focused on business services, infrastructure services and industrials.
- vi. *Residential development* operations consist of homebuilding, condominium development and land development.
- vii. *Corporate activities* include the investment of cash and financial assets, as well as the management of our corporate leverage, including corporate borrowings and preferred equity, which fund a portion of the capital invested in our other operations. Certain corporate costs such as technology and operations are incurred on behalf of our operating segments and allocated to each operating segment based on an internal pricing framework.

b) Segment Financial Measures

FFO is a key measure of our financial performance and our segment measure of profit and loss. It is utilized by our Chief Operating Decision Maker in assessing operating results and the performance of our businesses on a segmented basis. We define FFO as net income excluding fair value changes, depreciation and amortization and deferred income taxes, net of non-controlling interests. When determining FFO, we include our proportionate share of the FFO from equity accounted investments on a fully diluted basis. FFO also includes realized disposition gains and losses, which are gains or losses arising from transactions during the reporting period, adjusted to include associated fair value changes and revaluation surplus recorded in prior periods, taxes payable or receivable in connection with those transactions and amounts that are recorded directly in equity, such as ownership changes.

We use FFO to assess our performance as an asset manager and as an investor in our assets. FFO from our Asset Management segment includes fees, net of the associated costs, that we earn from managing capital in our listed partnerships, private funds and public securities accounts. We are also eligible to earn incentive payments in the form of incentive distributions, performance fees or carried interest. As an investor in our assets, our FFO represents the company's share of revenues less costs incurred within our operations, which include interest expenses and other costs. Specifically, it includes the impact of contracts that we enter into to generate revenues, including power sales agreements, contracts that our operating businesses enter into such as leases and take or pay contracts and sales of inventory. FFO includes the impact of changes in leverage or the cost of that financial leverage and other costs incurred to operate our business.

We use realized disposition gains and losses within FFO in order to provide additional insight regarding the performance of investments on a cumulative realized basis, including any unrealized fair value adjustments that were recorded in equity and not otherwise reflected in current period FFO, and believe it is useful to investors to better understand variances between reporting periods. We exclude depreciation and amortization from FFO as we believe that the value of most of our assets typically increases over time, provided we make the necessary maintenance expenditures, the timing and magnitude of which may differ from the amount of depreciation recorded in any given period. In addition, the depreciated cost base of our assets is reflected in the ultimate realized disposition gain or loss on disposal. As noted above, unrealized fair value changes are excluded from FFO until the period in which the asset is sold. We also exclude deferred income taxes from FFO because the vast majority of the company's deferred income tax assets and liabilities are a result of the revaluation of our assets under IFRS.

Our definition of FFO may differ from the definition used by other organizations, as well as the definition of FFO used by the Real Property Association of Canada ("REALPAC") and the National Association of Real Estate Investment Trusts, Inc. ("NAREIT"), in part because the NAREIT definition is based on U.S. GAAP, as opposed to IFRS. The key differences between our definition of FFO and the determination of FFO by REALPAC and/or NAREIT are that we include the following: realized disposition gains or losses and cash taxes payable or receivable on those gains or losses, if any; foreign exchange gains or losses on monetary items not forming part of our net investment in foreign operations; and foreign exchange gains or losses on the sale of an investment in a foreign operation. We do not use FFO as a measure of cash generated from our operations.

We illustrate how we derive FFO for each operating segment and reconcile total FFO to net income in Note 3(c)(v) of the consolidated financial statements.

Segment Balance Sheet Information

We use common equity by segment as our measure of segment assets when reviewing our deconsolidated balance sheet because it is utilized by our Chief Operating Decision Maker for capital allocation decisions.

Segment Allocation and Measurement

Segment measures include amounts earned from consolidated entities that are eliminated on consolidation. The principal adjustment is to include asset management revenues charged to consolidated entities as revenues within the company's Asset Management segment with the corresponding expense recorded as corporate costs within the relevant segment. These amounts are based on the in-place terms of the asset management contracts between the consolidated entities. Inter-segment revenues are determined under terms that approximate market value.

The company allocates the costs of shared functions that would otherwise be included within its Corporate Activities segment, such as information technology and internal audit, pursuant to formal policies.

c) Reportable Segment Measures

AS AT AND FOR THE YEAR ENDED DEC. 31, 2019 (MILLIONS)	Asset Management	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Corporate Activities	Total Segments	Note
External revenues	\$ 271	\$ 10,442	\$ 3,959	\$ 7,091	\$ 43,099	\$ 2,456	\$ 508	\$ 67,826	
Inter-segment and other revenues ¹	2,343	33	15	2	479	—	(49)	2,823	i
Segmented revenues	2,614	10,475	3,974	7,093	43,578	2,456	459	70,649	
FFO from equity accounted investments ¹	43	1,049	74	1,100	320	41	14	2,641	ii
Interest expense	—	(3,469)	(923)	(937)	(1,536)	(66)	(349)	(7,280)	iii
Current income taxes	—	(165)	(73)	(255)	(326)	(37)	(114)	(970)	iv
Funds from operations ¹	1,597	1,185	333	464	844	125	(359)	4,189	v
Common equity	4,927	18,781	5,320	2,792	4,086	2,859	(7,897)	30,868	
Equity accounted investments	4,599	22,314	1,154	8,972	2,596	382	681	40,698	
Additions to non-current assets ²	4,654	17,915	2,207	17,352	19,825	88	617	62,658	

1. We equity account for our investment in Oaktree and include our share of the FFO and FFO from equity accounted investments at 61%. However, for segment reporting, Oaktree's revenue is shown on a 100% basis. For the year ended December 31, 2019, \$231 million of Oaktree's revenues was included in our Asset Management segment revenue.
2. Includes equity accounted investments, investment properties, property, plant and equipment, sustainable resources, intangible assets and goodwill. Excludes non-current assets recognized on adoption of IFRS 16.

AS AT AND FOR THE YEAR ENDED DEC. 31, 2018 (MILLIONS)	Asset Management	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Corporate Activities	Total Segments	Note
External revenues	\$ 187	\$ 8,075	\$ 3,751	\$ 5,013	\$ 36,828	\$ 2,683	\$ 234	\$ 56,771	
Inter-segment revenues	1,760	41	11	5	442	—	(46)	2,213	i
Segmented revenues	1,947	8,116	3,762	5,018	37,270	2,683	188	58,984	
FFO from equity accounted investments	—	945	46	846	526	15	(6)	2,372	ii
Interest expense	—	(2,464)	(930)	(586)	(520)	(57)	(323)	(4,880)	iii
Current income taxes	—	(213)	(32)	(326)	(186)	(45)	(59)	(861)	iv
Funds from operations	1,317	1,786	328	602	795	49	(476)	4,401	v
Common equity	328	17,423	5,302	2,887	4,279	2,606	(7,178)	25,647	
Equity accounted investments	—	22,949	685	7,636	1,943	395	39	33,647	
Additions to non-current assets ¹	—	51,111	3,729	10,524	10,139	124	190	75,817	

1. Includes equity accounted investments, investment properties, property, plant and equipment, sustainable resources, intangible assets and goodwill.

i. Inter-Segment Revenues

For the year ended December 31, 2019, the adjustment to external revenues when determining segmented revenues consists of asset management revenues earned from consolidated entities and our investment in Oaktree totaling \$2.3 billion (2018 – \$1.8 billion), revenues earned on construction projects between consolidated entities totaling \$450 million (2018 – \$430 million), and interest income and other revenues totaling \$30 million (2018 – \$23 million), which were eliminated on consolidation to arrive at the company's consolidated revenues.

ii. FFO from Equity Accounted Investments

The company determines FFO from its equity accounted investments by applying the same methodology utilized in adjusting net income of consolidated entities. The following table reconciles the company's consolidated equity accounted income to FFO from equity accounted investments:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Consolidated equity accounted income	\$ 2,498	\$ 1,088
Non-FFO items from equity accounted investments ¹	143	1,284
FFO from equity accounted investments	<u>\$ 2,641</u>	<u>\$ 2,372</u>

1. Adjustment to back out non-FFO expenses (income) that are included in consolidated equity accounted income including depreciation and amortization, deferred taxes and fair value changes from equity accounted investments.

iii. Interest Expense

For the year ended December 31, 2019, the adjustment to interest expense consists of interest on loans between consolidated entities totaling \$53 million (2018 – \$26 million) that is eliminated on consolidation, along with the associated revenue.

iv. Current Income Taxes

Current income taxes are included in FFO but are aggregated with deferred income taxes in income tax expense on the company's Consolidated Statements of Operations. The following table reconciles consolidated income taxes to current and deferred income taxes:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Current income tax expense	\$ (970)	\$ (861)
Deferred income tax recovery	475	1,109
Income tax (expense) recovery	<u>\$ (495)</u>	<u>\$ 248</u>

v. Reconciliation of Net Income to Total FFO

The following table reconciles net income to total FFO:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	Note	2019	2018
Net income		\$ 5,354	\$ 7,488
Realized disposition gains in fair value changes or equity	vi	621	1,445
Non-controlling interests in FFO		(7,161)	(6,015)
Financial statement components not included in FFO			
Equity accounted fair value changes and other non-FFO items		143	1,284
Fair value changes		831	(1,794)
Depreciation and amortization		4,876	3,102
Deferred income taxes		(475)	(1,109)
Total FFO		<u>\$ 4,189</u>	<u>\$ 4,401</u>

vi. Realized Disposition Gains

Realized disposition gains include gains and losses recorded in net income arising from transactions during the current period, adjusted to include fair value changes and revaluation surplus recorded in prior periods in connection with the assets sold. Realized disposition gains also include amounts that are recorded directly in equity as changes in ownership, as opposed to net income, because they result from a change in ownership of a consolidated entity.

The realized disposition gains recorded in fair value changes, revaluation surplus or directly in equity were \$621 million for the year ended December 31, 2019 (2018 – \$1.4 billion), of which \$284 million relates to prior periods (2018 – \$1.1 billion), \$258 million has been recorded directly in equity as changes in ownership (2018 – \$242 million) and \$79 million has been recorded in fair value changes (2018 – \$95 million).

d) Geographic Allocation

The company's revenues by location of operations are as follows:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
United States.....	\$ 16,584	\$ 9,756
Canada	6,202	6,422
United Kingdom	21,847	23,684
Europe.....	6,285	3,275
Australia	5,522	4,968
Brazil	4,099	4,048
Asia.....	2,402	1,643
Colombia	2,095	1,594
Other	2,790	1,381
	<u>\$ 67,826</u>	<u>\$ 56,771</u>

The company's consolidated assets by location are as follows:

AS AT DEC. 31 (MILLIONS)	2019	2018
United States.....	\$ 149,687	\$ 128,808
Canada	35,840	27,850
United Kingdom	30,184	23,093
Brazil	24,354	22,539
Europe.....	19,404	13,250
Australia	22,971	13,309
Asia.....	17,468	10,479
Colombia	10,819	9,862
Other	13,242	7,091
	<u>\$ 323,969</u>	<u>\$ 256,281</u>

4. SUBSIDIARIES

The following table presents the details of the company's subsidiaries with significant non-controlling interests:

AS AT DEC. 31	Jurisdiction of Formation	Ownership Interest Held by Non-Controlling Interests ^{1,2}	
		2019	2018
Brookfield Property Partners L.P. ("BPY").....	Bermuda	44.8%	46.2%
Brookfield Renewable Partners L.P. ("BEP")	Bermuda	39.5%	39.5%
Brookfield Infrastructure Partners L.P. ("BIP")	Bermuda	70.4%	70.5%
Brookfield Business Partners L.P. ("BBU").....	Bermuda	37.3%	32.0%

1. Control and associated voting rights of the limited partnerships (BPY, BEP, BIP and BBU) resides with their respective general partners which are wholly owned subsidiaries of the company. The company's general partner interest is entitled to earn base management fees and incentive payments in the form of incentive distribution rights or performance fees.
2. The company's ownership interest in BPY, BEP, BIP and BBU includes a combination of redemption-exchange units (REUs), Class A limited partnership units, special limited partnership units, general partnership units and units or shares that are exchangeable for units in our listed partnerships, in each subsidiary, where applicable. Each of BPY, BEP, BIP and BBU's partnership capital includes its Class A limited partnership units whereas REUs and general partnership units are considered non-controlling interests for the respective partnerships. REUs share the same economic attributes in all respects except for the redemption right attached thereto. The REUs and general partnership units participate in earnings and distributions on a per unit basis equivalent to the per unit participation of the Class A limited partnership units of the subsidiary.

The table below presents the exchanges on which the company's subsidiaries with significant non-controlling interests were publicly listed as of December 31, 2019:

	TSX	NYSE	Nasdaq
BPY.....	BPY.UN	N/A	BPY
BEP.....	BEP.UN	BEP	N/A
BIP.....	BIP.UN	BIP	N/A
BBU.....	BBU.UN	BBU	N/A

The following table outlines the composition of accumulated non-controlling interests presented within the company's consolidated financial statements:

AS AT DEC. 31 (MILLIONS)	2019	2018
BPY.....	\$ 29,165	\$ 31,580
BEP.....	13,321	12,457
BIP.....	20,036	12,752
BBU.....	8,664	4,477
Individually immaterial subsidiaries with non-controlling interests.....	10,647	6,069
	<u>\$ 81,833</u>	<u>\$ 67,335</u>

All publicly listed entities are subject to independent governance. Accordingly, the company has no direct access to the assets of these subsidiaries. Summarized financial information with respect to the company's subsidiaries with significant non-controlling interests is set out below. The summarized financial information represents amounts before intra-group eliminations:

	BPY		BEP		BIP		BBU	
AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018	2019	2018	2019	2018	2019	2018
Current assets.....	\$ 3,289	\$ 7,114	\$ 1,474	\$ 1,961	\$ 5,841	\$ 2,276	\$ 12,795	\$ 9,781
Non-current assets.....	108,354	115,406	34,217	32,142	50,467	34,304	38,956	17,537
Current liabilities.....	(12,466)	(10,306)	(1,678)	(1,689)	(5,439)	(2,417)	(11,024)	(9,016)
Non-current liabilities.....	(54,242)	(65,474)	(15,882)	(15,208)	(28,692)	(19,495)	(29,674)	(11,808)
Non-controlling interests.....	(29,165)	(31,580)	(13,321)	(12,457)	(20,036)	(12,752)	(8,664)	(4,477)
Equity attributable to Brookfield.....	<u>\$ 15,770</u>	<u>\$ 15,160</u>	<u>\$ 4,810</u>	<u>\$ 4,749</u>	<u>\$ 2,141</u>	<u>\$ 1,916</u>	<u>\$ 2,389</u>	<u>\$ 2,017</u>
Revenues.....	<u>\$ 8,203</u>	<u>\$ 7,239</u>	<u>\$ 2,980</u>	<u>\$ 2,982</u>	<u>\$ 6,597</u>	<u>\$ 4,652</u>	<u>\$ 43,032</u>	<u>\$ 37,168</u>
Net income (loss) attributable to:								
Non-controlling interests.....	\$ 2,091	\$ 2,356	\$ 348	\$ 401	\$ 636	\$ 724	\$ 353	\$ 1,106
Shareholders.....	1,066	1,298	(75)	2	14	82	81	97
	<u>\$ 3,157</u>	<u>\$ 3,654</u>	<u>\$ 273</u>	<u>\$ 403</u>	<u>\$ 650</u>	<u>\$ 806</u>	<u>\$ 434</u>	<u>\$ 1,203</u>
Other comprehensive income (loss) attributable to:								
Non-controlling interests.....	\$ 234	\$ (122)	\$ 1,179	\$ 2,292	\$ 486	\$ (859)	\$ (159)	\$ (292)
Shareholders.....	89	(294)	546	972	104	(86)	(39)	(96)
	<u>\$ 323</u>	<u>\$ (416)</u>	<u>\$ 1,725</u>	<u>\$ 3,264</u>	<u>\$ 590</u>	<u>\$ (945)</u>	<u>\$ (198)</u>	<u>\$ (388)</u>

The summarized cash flows of the company's subsidiaries with material non-controlling interests are as follows:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	BPY		BEP		BIP		BBU	
	2019	2018	2019	2018	2019	2018	2019	2018
Cash flows from (used in):								
Operating activities	\$ 624	\$ 1,357	\$ 1,212	\$ 1,103	\$ 2,143	\$ 1,362	\$ 2,163	\$ 1,341
Financing activities	(892)	8,873	(1,010)	(1,080)	9,542	4,418	15,925	3,561
Investing activities	(1,611)	(8,406)	(251)	(624)	(11,372)	(5,564)	(17,939)	(3,999)
Distributions paid to non-controlling interests in common equity	\$ 576	\$ 427	\$ 254	\$ 244	\$ 628	\$ 558	\$ 13	\$ 11

5. ACQUISITIONS OF CONSOLIDATED ENTITIES

a) Completed During 2019

The following table summarizes the balance sheet impact as a result of business combinations that occurred in the year ended December 31, 2019. The valuations of the assets acquired are still under evaluation and as such the business combinations have been accounted for on a provisional basis:

(MILLIONS)	Private Equity	Infrastructure	Real Estate	Renewable Power and Other	Total
Cash and cash equivalents.....	\$ 344	\$ 94	\$ 31	\$ 6	\$ 475
Accounts receivable and other	6,706	553	114	110	7,483
Assets classified as held for sale	—	1,584	—	—	1,584
Inventory	2,230	74	46	13	2,363
Equity accounted investments.....	847	48	—	—	895
Investment properties	—	211	3,458	—	3,669
Property, plant and equipment.....	6,650	8,710	785	1,308	17,453
Intangible assets	7,057	3,248	28	—	10,333
Goodwill.....	3,479	2,644	2	—	6,125
Deferred income tax assets.....	363	46	—	—	409
Total assets	27,676	17,212	4,464	1,437	50,789
Less:					
Accounts payable and other.....	(5,025)	(2,425)	(2,394)	(101)	(9,945)
Non-recourse borrowings	(1,084)	(1,980)	(537)	(319)	(3,920)
Deferred income tax liabilities	(1,142)	(1,248)	—	(36)	(2,426)
Non-controlling interests ¹	(1,749)	(828)	(88)	—	(2,665)
	(9,000)	(6,481)	(3,019)	(456)	(18,956)
Net assets acquired	\$ 18,676	\$ 10,731	\$ 1,445	\$ 981	\$ 31,833
Consideration ²	\$ 18,672	\$ 10,731	\$ 1,445	\$ 981	\$ 31,829

1. Includes non-controlling interests recognized on business combinations measured as the proportionate share of fair value of the identifiable assets and liabilities on the date of acquisition.

2. Total consideration, including amounts paid by non-controlling interests that participated in the acquisition as investors in Brookfield-sponsored private funds or as co-investors.

Brookfield recorded \$7.6 billion of revenue and \$635 million of net losses in 2019 from the acquired operations as a result of the acquisitions made during the year. If the acquisitions had occurred at the beginning of the year, they would have contributed \$14.7 billion and \$189 million to total revenue and net income, respectively. The difference in our net losses since acquisition date compared to net income had we held our investments since January 1 primarily relate to the timing of acquisitions during the year as those with large contributors to net income were purchased in late 2019. In addition, our post-acquisition margins were reduced from the step-up in inventory costs resulting from purchase price allocations as well as restructuring costs in certain of our acquisitions.

The following table summarizes the balance sheet impact as a result of significant business combinations that occurred in 2019. The valuations of the assets acquired are still under evaluation and as such the business combinations have been accounted for on a provisional basis.

(MILLIONS)	Private Equity			Infrastructure			Real Estate	Renewable Power
	Clarios	Healthscope	Genworth	East-West Pipeline	Genesee & Wyoming	NorthRiver	Aveo Group	Arcadia
Cash and cash equivalents	\$ 11	\$ 25	\$ 253	\$ —	\$ 67	\$ 2	\$ 27	\$ 3
Accounts receivable and other	1,503	196	4,796	66	461	—	92	31
Assets classified as held for sale	—	—	—	—	1,584	—	—	—
Inventory	1,775	41	—	28	43	3	43	7
Equity accounted investments	838	9	—	—	48	—	—	—
Investment properties	—	—	—	—	—	—	3,458	—
Property, plant and equipment	3,582	2,590	10	2,134	5,283	1,198	95	759
Intangible assets	6,420	280	243	295	1,992	74	2	—
Goodwill	1,894	1,548	—	—	2,042	218	—	—
Deferred income tax assets	181	136	—	—	5	41	—	—
Total assets	16,204	4,825	5,302	2,523	11,525	1,536	3,717	800
Less:								
Accounts payable and other	(1,998)	(691)	(1,954)	(66)	(2,071)	(218)	(2,368)	(65)
Non-recourse borrowings	—	—	(342)	—	(1,567)	—	(537)	—
Deferred income tax liabilities	(967)	(79)	(49)	—	(1,111)	—	—	—
Non-controlling interests ¹ ...	(469)	—	(1,279)	(578)	(250)	—	(88)	—
	(3,434)	(770)	(3,624)	(644)	(4,999)	(218)	(2,993)	(65)
Net assets acquired	\$ 12,770	\$ 4,055	\$ 1,678	\$ 1,879	\$ 6,526	\$ 1,318	\$ 724	\$ 735
Consideration ²	\$ 12,770	\$ 4,055	\$ 1,674	\$ 1,879	\$ 6,526	\$ 1,318	\$ 724	\$ 735

1. Includes non-controlling interests recognized on business combinations measured as the proportionate share of fair value of the identifiable assets and liabilities on the date of acquisition.

2. Total consideration, including amounts paid by non-controlling interests that participated in the acquisition as investors in Brookfield-sponsored private funds or as co-investors.

Private Equity

On April 30, 2019, a subsidiary of the company, along with institutional partners, acquired a 100% interest in Clarios, a global automotive battery business, for total consideration of \$12.8 billion. Total consideration paid was funded with \$2.9 billion of cash on hand, with \$9.9 billion funded through non-recourse borrowings raised concurrently on closing. The acquisition resulted in recognition of \$1.9 billion of goodwill, which is largely reflective of potential to innovate and grow the business. Approximately \$20 million of the goodwill recognized is deductible for tax purposes. Total revenues and net loss that would have been recorded if the transaction had occurred at the beginning of the year are \$8.3 billion and \$74 million, respectively.

On June 6, 2019, a subsidiary of the company, along with institutional partners, acquired a 100% interest in Healthscope Limited, an Australian private healthcare provider, for a total consideration of \$4.1 billion. Total consideration paid was funded with \$1.2 billion of cash on hand, with \$2.9 billion funded through non-recourse borrowings raised concurrently on closing. The acquisition resulted in recognition of \$1.5 billion of goodwill, which is largely reflective of potential growth from integration of the operations. None of the goodwill recognized is deductible for tax purposes. Total revenues and net loss that would have been recorded if the transaction had occurred at the beginning of the year are \$1.6 billion and \$81 million, respectively.

On December 12, 2019, a subsidiary of the company, along with institutional partners, acquired a 57% interest in Genworth, a Canadian mortgage insurance services business, for total consideration of \$1.7 billion, which was funded with cash on hand. The acquisition generated a bargain purchase gain of \$4 million. Total revenues and net loss that would have been recorded if the transaction had occurred at the beginning of the year are \$677 million and \$321 million, respectively.

Infrastructure

On March 22, 2019, a subsidiary of the company, along with institutional partners, acquired a 100% interest in East-West Pipeline Limited, an Indian natural gas pipeline business, for total consideration of \$1.9 billion. Consideration paid was funded with \$959 million of cash on hand and the remainder funded through non-recourse borrowings raised concurrently on closing. Total revenues and net loss that would have been recorded if the transaction had occurred at the beginning of the year are \$359 million and \$65 million, respectively.

On December 30, 2019, a subsidiary of the company, along with institutional partners, acquired a 100% interest in Genesee & Wyoming Inc., a short-haul rail operator in North America, for a total consideration of \$6.5 billion. Consideration paid funded with \$5.4 billion of cash on hand and the remainder funded through non-recourse borrowings raised concurrently on closing. The acquisition resulted in recognition of \$2.0 billion of goodwill, which is largely reflective of potential growth prospects and strong market position. None of the goodwill recognized is deductible for tax purposes. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$2.3 billion and \$235 million, respectively.

On December 31, 2019, a subsidiary of the company, along with institutional partners, acquired a 100% interest in NorthRiver Midstream Inc., the federally regulated portion of Enbridge Inc.'s Canadian natural gas midstream business to be operated alongside the provincial assets acquired in 2018, for a total consideration of \$1.3 billion. Consideration paid funded with \$861 million of cash on hand and the remainder funded through non-recourse borrowings raised concurrently on closing. The acquisition resulted in recognition of \$218 million of goodwill, which is largely reflective of potential growth prospects and strong market position. The goodwill recognized is deductible for tax purposes. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$271 million and \$121 million, respectively.

Real Estate

On November 29, 2019, a subsidiary of the company, along with institutional partners, acquired an 84% interest in Aveo Group, a real estate company that develops, owns and operates a portfolio of retirement homes in Australia, for total consideration of \$724 million. Consideration paid funded with \$658 million of cash on hand and the remainder funded through non-recourse borrowings raised concurrently on closing. Total revenues and net loss that would have been recorded if the transaction had occurred at the beginning of the year are \$174 million and \$4 million, respectively.

Renewable Power

On September 26, 2019, a subsidiary of the company acquired a 100% interest in Arcadia, a distributed generation portfolio of renewable energy facilities in the United States, for total consideration of \$735 million funded by non-recourse borrowings raised concurrently on closing. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$67 million and \$22 million, respectively.

b) Completed During 2018

The following table summarizes the balance sheet impact as a result of business combinations that occurred in 2018. No material changes were made to those allocations disclosed in the 2018 consolidated financial statements:

(MILLIONS)	Real Estate	Infrastructure	Private Equity	Renewable Power and Other	Total
Cash and cash equivalents.....	\$ 1,056	\$ 71	\$ 658	\$ 388	\$ 2,173
Accounts receivable and other	2,247	511	2,267	623	5,648
Inventory	150	23	686	5	864
Equity accounted investments.....	12,379	15	329	29	12,752
Investment properties	33,024	—	—	—	33,024
Property, plant and equipment.....	1,748	2,945	4,913	2,970	12,576
Intangible assets	54	3,208	2,942	386	6,590
Goodwill.....	96	2,905	971	186	4,158
Deferred income tax assets.....	220	—	38	582	840
Total assets	<u>50,974</u>	<u>9,678</u>	<u>12,804</u>	<u>5,169</u>	<u>78,625</u>
Less:					
Accounts payable and other	(2,177)	(591)	(3,654)	(715)	(7,137)
Non-recourse borrowings	(18,218)	(1,484)	(3,668)	(2,023)	(25,393)
Deferred income tax liabilities	(58)	(839)	(157)	(210)	(1,264)
Non-controlling interests ¹	(2,603)	(544)	(515)	(22)	(3,684)
	<u>(23,056)</u>	<u>(3,458)</u>	<u>(7,994)</u>	<u>(2,970)</u>	<u>(37,478)</u>
Net assets acquired	<u>\$ 27,918</u>	<u>\$ 6,220</u>	<u>\$ 4,810</u>	<u>\$ 2,199</u>	<u>\$ 41,147</u>
Consideration ²	<u>\$ 26,759</u>	<u>\$ 6,220</u>	<u>\$ 4,810</u>	<u>\$ 1,807</u>	<u>\$ 39,596</u>

1. Includes non-controlling interests recognized on business combinations measured as the proportionate share of fair value of the identifiable assets and liabilities on the date of acquisition.

2. Total consideration, including amounts paid by non-controlling interests that participated in the acquisition as investors in Brookfield-sponsored private funds or as co-investors.

Brookfield recorded \$5.1 billion of revenue and \$711 million of net income in 2018 from the acquired operations as a result of the acquisitions made during the year. If the acquisitions had occurred at the beginning of the year, they would have contributed \$12.6 billion and \$1.8 billion to total revenue and net income, respectively.

The following table summarizes the balance sheet impact as a result of significant business combinations that occurred in 2018. No material changes were made to those allocations disclosed in the 2018 consolidated financial statements.

(MILLIONS)	Real Estate			Private Equity	Infrastructure			Renewable Power
	666 Fifth	GGP	Forest City	Westinghouse	NorthRiver	Enercare	Evoque	Saeta Yield
Cash and cash equivalents.....	\$ —	\$ 424	\$ 451	\$ 250	\$ 10	\$ 24	\$ —	\$ 187
Accounts receivable and other.....	11	592	960	1,854	55	187	3	216
Inventory	—	—	89	626	—	—	—	—
Equity accounted investments.....	—	10,829	1,467	7	—	—	—	14
Investment properties ..	1,292	17,991	9,397	—	—	—	—	—
Property, plant and equipment.....	—	56	—	931	1,442	669	440	2,724
Intangible assets	—	—	—	2,683	157	1,863	221	258
Goodwill.....	—	—	—	213	524	1,260	463	115
Deferred income tax assets.....	—	—	—	7	—	23	—	—
Total assets	<u>1,303</u>	<u>29,892</u>	<u>12,364</u>	<u>6,571</u>	<u>2,188</u>	<u>4,026</u>	<u>1,127</u>	<u>3,514</u>
Less:								
Accounts payable and other	(4)	(691)	(1,119)	(2,645)	(46)	(235)	(24)	(320)
Non-recourse borrowings.....	—	(13,147)	(3,664)	(3)	—	(877)	—	(1,906)
Deferred income tax liabilities	—	(11)	—	(81)	(186)	(472)	—	(174)
Non-controlling interests ¹	—	(1,882)	(633)	(7)	—	—	—	—
	<u>(4)</u>	<u>(15,731)</u>	<u>(5,416)</u>	<u>(2,736)</u>	<u>(232)</u>	<u>(1,584)</u>	<u>(24)</u>	<u>(2,400)</u>
Net assets acquired	<u>\$ 1,299</u>	<u>\$ 14,161</u>	<u>\$ 6,948</u>	<u>\$ 3,835</u>	<u>\$ 1,956</u>	<u>\$ 2,442</u>	<u>\$ 1,103</u>	<u>\$ 1,114</u>
Consideration ²	<u>\$ 1,299</u>	<u>\$ 13,240</u>	<u>\$ 6,948</u>	<u>\$ 3,835</u>	<u>\$ 1,956</u>	<u>\$ 2,442</u>	<u>\$ 1,103</u>	<u>\$ 1,114</u>

1. Includes non-controlling interests recognized on business combinations measured as the proportionate share of fair value of the identifiable assets and liabilities on the date of acquisition.

2. Total consideration, including amounts paid by non-controlling interests that participated in the acquisition as investors in Brookfield-sponsored private funds or as co-investors.

On June 12, 2018, a subsidiary of the company, along with institutional investors, acquired a 95% interest in Saeta Yield, S.A. (“Saeta Yield”) for total cash consideration of \$1.1 billion, funded through an equity issuance at the subsidiary, amounts drawn on a non-recourse credit facility and available cash on hand. The acquisition resulted in \$115 million of goodwill due to the recognition of a deferred tax liability because the tax bases of the net assets are lower than their acquisition date fair value. None of the goodwill recognized is deductible for income tax purposes. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$407 million and \$63 million, respectively.

On August 1, 2018, a subsidiary of the company, together with institutional investors, acquired a 100% interest in Westinghouse Electric Company (“Westinghouse”). Total consideration paid was \$3.8 billion in cash, with \$886 million provided by the subsidiary and its partners and the balance funded through asset level debt raised concurrently on closing. On acquisition, goodwill of \$213 million was recognized, which represents future growth the subsidiary expects to receive from the integration of Westinghouse’s operations; this goodwill is not deductible for income tax purposes. Total revenues and net losses that would have been recorded if the transaction had occurred at the beginning of the year are \$3.9 billion and \$239 million, respectively.

On August 3, 2018, a subsidiary of the company, together with institutional investors, acquired a 100% leasehold interest in 666 Fifth Avenue, a commercial office asset in New York, for total consideration of \$1.3 billion. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$84 million and \$85 million, respectively.

On August 28, 2018, a subsidiary of the company acquired all outstanding shares of GGP other than those shares already held by the subsidiary for total consideration of \$13.2 billion, plus the payment of a pre-closing dividend of \$9.05 billion. The pre-closing dividend was funded by financing activity and proceeds from the sales of partial interests in certain properties within GGP.

- A new entity, Brookfield Property REIT (“BPR”), was formed to hold the GGP assets; BPR issued 161 million shares to GGP shareholders as consideration. BPR shares, which are structured to provide an economic return equivalent to that of BPY units, are presented as non-controlling interests within equity.
- The acquisition was accounted for as a business combination achieved in stages. Our existing equity interest in GGP was remeasured to its fair value of \$7.8 billion immediately prior to the completion of the transaction based on our interest in the fair value of GGP’s identifiable net assets and liabilities. As a result of this remeasurement, a loss of approximately \$502 million was recognized in fair value changes.
- Total consideration of \$13.2 billion is made up of our existing equity investment of \$7.8 billion, new equity, in the form of 88 million BPY LP units and 161 million BPR Class A shares, issued to GGP’s shareholders totaling \$5.2 billion, cash consideration of \$200 million and share-based payment awards to GGP employees with a fair value of \$28 million. On acquisition, we recognized a bargain purchase gain of \$921 million in fair value changes as the agreed upon transaction price and the fair value of the consideration transferred was less than the aggregate fair value of the assets acquired net of the liabilities assumed.
- Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$1.8 billion and \$1.1 billion, respectively.

On October 1, 2018, a subsidiary of the company, together with institutional investors, acquired a 100% interest in NorthRiver Midstream Inc. (“NorthRiver”), a western Canadian natural gas gathering and processing business, for total cash consideration of \$2.0 billion. The acquisition was funded through cash on hand and asset level debt raised concurrently on closing. On acquisition, goodwill of \$524 million was recognized, which represents the potential for obtaining long-term contracts for the business’ unutilized capacity and production growth in certain locations. None of the goodwill acquired is deductible for tax purposes. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$246 million and \$16 million, respectively.

On October 16, 2018, a subsidiary of the company, together with institutional investors, acquired a 100% interest in Enercare Inc. (“Enercare”), a North American residential energy infrastructure business, for total consideration of \$2.4 billion. The acquisition was funded through \$2.2 billion of cash with the remainder through equity issued to certain Enercare shareholders. On acquisition, goodwill of \$1.3 billion was recognized, which represents potential growth prospects and a strong market position as a key provider of residential energy infrastructure in North America. None of the goodwill recognized is deductible for tax purposes. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$949 million and \$5 million, respectively.

On December 7, 2018, a subsidiary of the company, together with institutional investors, acquired a 100% interest in Forest City Realty Trust, Inc. (“Forest City”) for total cash consideration of \$6.9 billion. The acquisition was funded through cash on hand and asset level debt raised concurrently on closing. The non-controlling interest acquired represents equity in partially owned and consolidated operations which are not attributable to Forest City. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$1.1 billion and \$381 million, respectively.

On December 31, 2018, a subsidiary of the company, together with institutional investors, acquired a 100% interest in Evoque Data Center Solutions (“Evoque”), AT&T’s large-scale data center business, for total cash consideration of \$1.1 billion. The acquisition was funded through cash on hand and asset level debt raised concurrently on closing. On acquisition, goodwill of \$463 million was recognized, which is largely reflective of potential customer growth, arising from the business’ position as one of the largest colocation providers in the United States and the increasing rate of worldwide data consumption. All of the goodwill is deductible for income tax purposes. Total revenues and net income that would have been recorded if the transaction had occurred at the beginning of the year are \$321 million and \$6 million, respectively.

6. FAIR VALUE OF FINANCIAL INSTRUMENTS

a) Financial Instrument Classification

The following tables list the company's financial instruments by their respective classification as at December 31, 2019 and 2018:

AS AT DEC. 31, 2019 (MILLIONS)	Fair Value Through Profit or Loss	Fair Value Through OCI	Amortized Cost	Total
Financial assets¹				
Cash and cash equivalents	\$ —	\$ —	\$ 6,778	\$ 6,778
Other financial assets				
Government bonds	156	2,247	—	2,403
Corporate bonds	1,118	1,839	310	3,267
Fixed income securities and other	1,131	619	—	1,750
Common shares and warrants	1,791	1,398	—	3,189
Loans and notes receivable	55	—	1,804	1,859
	4,251	6,103	2,114	12,468
Accounts receivable and other ²	1,957	—	12,078	14,035
	<u>\$ 6,208</u>	<u>\$ 6,103</u>	<u>\$ 20,970</u>	<u>\$ 33,281</u>
Financial liabilities				
Corporate borrowings	\$ —	\$ —	\$ 7,083	\$ 7,083
Non-recourse borrowings of managed entities				
Property-specific borrowings	—	—	127,869	127,869
Subsidiary borrowings	—	—	8,423	8,423
	—	—	136,292	136,292
Accounts payable and other ²	4,528	—	32,196	36,724
Subsidiary equity obligations	1,896	—	2,236	4,132
	<u>\$ 6,424</u>	<u>\$ —</u>	<u>\$ 177,807</u>	<u>\$ 184,231</u>

1. Financial assets include \$7.0 billion of assets pledged as collateral.

2. Includes derivative instruments which are elected for hedge accounting, totaling \$950 million included in accounts receivable and other and \$1.3 billion included in accounts payable and other, for which changes in fair value are recorded in other comprehensive income.

AS AT DEC. 31, 2018
(MILLIONS)

	Fair Value Through Profit or Loss	Fair Value Through OCI	Amortized Cost	Total
Financial assets¹				
Cash and cash equivalents	\$ —	\$ —	\$ 8,390	\$ 8,390
Other financial assets				
Government bonds	68	20	—	88
Corporate bonds	536	96	273	905
Fixed income securities and other	570	311	156	1,037
Common shares and warrants	689	1,690	—	2,379
Loans and notes receivable	50	—	1,768	1,818
	1,913	2,117	2,197	6,227
Accounts receivable and other ²	2,113	—	10,449	12,562
	<u>\$ 4,026</u>	<u>\$ 2,117</u>	<u>\$ 21,036</u>	<u>\$ 27,179</u>
Financial liabilities				
Corporate borrowings	\$ —	\$ —	\$ 6,409	\$ 6,409
Non-recourse borrowings of managed entities				
Property-specific borrowings	—	—	103,209	103,209
Subsidiary borrowings	—	—	8,600	8,600
	—	—	111,809	111,809
Accounts payable and other ²	3,362	—	20,627	23,989
Subsidiary equity obligations	1,725	—	2,151	3,876
	<u>\$ 5,087</u>	<u>\$ —</u>	<u>\$ 140,996</u>	<u>\$ 146,083</u>

1. Financial assets include \$7.2 billion of assets pledged as collateral.

2. Includes derivative instruments which are elected for hedge accounting, totaling \$1.5 billion included in accounts receivable and other and \$465 million included in accounts payable and other, for which changes in fair value are recorded in other comprehensive income.

Gains or losses arising from changes in the fair value through profit or loss (“FVTPL”) financial assets are presented in the Consolidated Statements of Operations in the period in which they arise. Dividends from FVTPL and fair value through other comprehensive income (“FVTOCI”) financial assets are recognized in the Consolidated Statements of Operations when the company’s right to receive payment is established. Interest on FVTOCI financial assets is calculated using the effective interest method and reported in our Consolidated Statements of Operations.

FVTOCI debt and equity securities are recorded on the balance sheet at fair value with changes in fair value recorded through other comprehensive income. As at December 31, 2019, the unrealized gains and losses relating to the fair value of FVTOCI securities amounted to \$479 million (2018 – \$212 million) and \$108 million (2018 – \$152 million), respectively.

During the year ended December 31, 2019, \$3 million of net deferred losses (2018 – \$nil) previously recognized in accumulated other comprehensive income were reclassified to net income as a result of the disposition or impairment of certain of our FVTOCI financial assets that are not equity instruments.

Included in cash and cash equivalents is \$5.7 billion (2018 – \$7.7 billion) of cash and \$1.1 billion (2018 – \$685 million) of short-term deposits as at December 31, 2019.

b) Carrying and Fair Value

The following table lists the company's financial instruments by their respective classification as at December 31, 2019 and December 31, 2018:

AS AT DEC. 31 (MILLIONS)	2019		2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Financial assets				
Cash and cash equivalents.....	\$ 6,778	\$ 6,778	\$ 8,390	\$ 8,390
Other financial assets				
Government bonds.....	2,403	2,403	88	88
Corporate bonds.....	3,267	3,267	905	905
Fixed income securities and other	1,750	1,750	1,037	1,037
Common shares and warrants.....	3,189	3,189	2,379	2,379
Loans and notes receivable.....	1,859	1,859	1,818	1,818
	<u>12,468</u>	<u>12,468</u>	<u>6,227</u>	<u>6,227</u>
Accounts receivable and other	14,035	14,035	12,562	12,562
	<u>\$ 33,281</u>	<u>\$ 33,281</u>	<u>\$ 27,179</u>	<u>\$ 27,179</u>
Financial liabilities				
Corporate borrowings.....	\$ 7,083	\$ 7,933	\$ 6,409	\$ 6,467
Non-recourse borrowings of managed entities				
Property-specific borrowings.....	127,869	129,728	103,209	104,291
Subsidiary borrowings	8,423	8,632	8,600	8,557
	<u>136,292</u>	<u>138,360</u>	<u>111,809</u>	<u>112,848</u>
Accounts payable and other	36,724	36,724	23,989	23,989
Subsidiary equity obligations.....	4,132	4,139	3,876	3,876
	<u>\$ 184,231</u>	<u>\$ 187,156</u>	<u>\$ 146,083</u>	<u>\$ 147,180</u>

The current and non-current balances of other financial assets are as follows:

AS AT DEC. 31 (MILLIONS)	2019	2018
Current.....	\$ 3,605	\$ 3,382
Non-current.....	8,863	2,845
Total.....	<u>\$ 12,468</u>	<u>\$ 6,227</u>

c) Fair Value Hierarchy Levels

The following table categorizes financial assets and liabilities, which are carried at fair value, based upon the fair value hierarchy levels:

AS AT DEC. 31 (MILLIONS)	2019			2018		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial assets						
Other financial assets						
Government bonds.....	\$ —	\$ 2,403	\$ —	\$ —	\$ 88	\$ —
Corporate bonds.....	—	2,682	275	—	632	—
Fixed income securities and other	419	851	480	22	369	490
Common shares and warrants.....	1,966	421	802	1,928	229	222
Loans and notes receivables	—	51	4	—	46	4
Accounts receivable and other	1	1,737	219	44	1,990	79
	<u>\$ 2,386</u>	<u>\$ 8,145</u>	<u>\$ 1,780</u>	<u>\$ 1,994</u>	<u>\$ 3,354</u>	<u>\$ 795</u>
Financial liabilities						
Accounts payable and other	\$ 93	\$ 3,749	\$ 686	\$ 81	\$ 2,622	\$ 659
Subsidiary equity obligations	—	40	1,856	—	85	1,640
	<u>\$ 93</u>	<u>\$ 3,789</u>	<u>\$ 2,542</u>	<u>\$ 81</u>	<u>\$ 2,707</u>	<u>\$ 2,299</u>

During the year ended December 31, 2019 and 2018, there were no transfers between Level 1, 2 or 3.

Fair values of financial instruments are determined by reference to quoted bid or ask prices, as appropriate. If bid and ask prices are unavailable, the closing price of the most recent transaction of that instrument is used. In the absence of an active market, fair values are determined based on prevailing market rates for instruments with similar characteristics and risk profiles or internal or external valuation models, such as option pricing models and discounted cash flow analysis, using observable market inputs.

The following table summarizes the valuation techniques and key inputs used in the fair value measurement of Level 2 financial instruments:

(MILLIONS) Type of Asset/Liability	Carrying Value Dec. 31, 2019	Valuation Techniques and Key Inputs
Derivative assets/Derivative liabilities (accounts receivable/ accounts payable)	\$ 1,737/ (3,749)	Foreign currency forward contracts – discounted cash flow model – forward exchange rates (from observable forward exchange rates at the end of the reporting period) and discounted at credit adjusted rate Interest rate contracts – discounted cash flow model – forward interest rates (from observable yield curves) and applicable credit spreads discounted at a credit adjusted rate Energy derivatives – quoted market prices, or in their absence internal valuation models, corroborated with observable market data
Other financial assets.....	6,408	Valuation models based on observable market data
Redeemable fund units (subsidiary equity obligations) ..	(40)	Aggregated market prices of underlying investments

Fair values determined using valuation models requiring the use of unobservable inputs (Level 3 financial assets and liabilities) include assumptions concerning the amount and timing of estimated future cash flows and discount rates. In determining those unobservable inputs, the company uses observable external market inputs such as interest rate yield curves, currency rates and price and rate volatilities, as applicable, to develop assumptions regarding those unobservable inputs.

The following table summarizes the valuation techniques and significant unobservable inputs used in the fair value measurement of Level 3 financial instruments:

(MILLIONS) Type of Asset/Liability	Carrying Value Dec. 31, 2019	Valuation Techniques	Significant Unobservable Inputs	Relationship of Unobservable Inputs to Fair Value
Fixed income securities and other	\$ 480	Discounted cash flows	<ul style="list-style-type: none"> • Future cash flows • Discount rate 	<ul style="list-style-type: none"> • Increases (decreases) in future cash flows increase (decrease) fair value • Increases (decreases) in discount rate decrease (increase) fair value
Corporate bonds.....	275	Discounted cash flows	<ul style="list-style-type: none"> • Future cash flows • Discount rate 	<ul style="list-style-type: none"> • Increases (decreases) in future cash flows increase (decrease) fair value • Increases (decreases) in discount rate decrease (increase) fair value
Common shares (common shares and warrants)	802	Black-Scholes model	<ul style="list-style-type: none"> • Volatility • Term to maturity 	<ul style="list-style-type: none"> • Increases (decreases) in volatility increase (decreases) fair value • Increases (decreases) in term to maturity increase (decrease) fair value
Limited-life funds (subsidiary equity obligations)	(1,856)	Discounted cash flows	<ul style="list-style-type: none"> • Future cash flows • Discount rate • Terminal capitalization rate • Investment horizon 	<ul style="list-style-type: none"> • Increases (decreases) in future cash flows increase (decrease) fair value • Increases (decreases) in discount rate decrease (increase) fair value • Increases (decreases) in terminal capitalization rate decrease (increase) fair value • Increases (decreases) in the investment horizon decrease (increase) fair value
Derivative assets/Derivative liabilities (accounts receivable/payable)	219/ (686)	Discounted cash flows	<ul style="list-style-type: none"> • Future cash flows • Discount rate 	<ul style="list-style-type: none"> • Increases (decreases) in future cash flows increase (decrease) fair value • Increases (decreases) in discount rate decrease (increase) fair value

The following table presents the changes in the balance of financial assets and liabilities classified as Level 3 for the years ended December 31, 2019 and 2018:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019		2018	
	Financial Assets	Financial Liabilities	Financial Assets	Financial Liabilities
Balance, beginning of year	\$ 795	\$ 2,299	\$ 869	\$ 2,263
Fair value changes in net income	278	(27)	(113)	(89)
Fair value changes in other comprehensive income ¹	(10)	6	(2)	(48)
Additions, net of disposals	717	264	41	173
Balance, end of year	<u>\$ 1,780</u>	<u>\$ 2,542</u>	<u>\$ 795</u>	<u>\$ 2,299</u>

1. Includes foreign currency translation.

The following table categorizes liabilities measured at amortized cost, but for which fair values are disclosed based upon the fair value hierarchy levels:

AS AT DEC. 31 (MILLIONS)	2019			2018		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Corporate borrowings	\$ 7,841	\$ 92	\$ —	\$ 6,376	\$ 91	\$ —
Property-specific borrowings	6,467	52,386	70,875	6,918	30,214	67,159
Subsidiary borrowings	6,111	299	2,222	3,640	2,355	2,562
Subsidiary equity obligations	—	73	2,170	—	—	2,151

Fair values of Level 2 and Level 3 liabilities measured at amortized cost but for which fair values are disclosed are determined using valuation techniques such as adjusted public pricing and discounted cash flows.

d) Hedging Activities

The company uses derivatives and non-derivative financial instruments to manage or maintain exposures to interest, currency, credit and other market risks. Derivative financial instruments are recorded at fair value. For certain derivatives which are used to manage exposures, the company determines whether hedge accounting can be applied. Hedge accounting is applied when the derivative is designated as a hedge of a specific exposure and there is assurance that it will continue to be highly effective as a hedge based on an expectation of offsetting cash flows or fair value. Hedge accounting is discontinued prospectively when the derivative no longer qualifies as a hedge or the hedging relationship is terminated. Once discontinued, the cumulative change in fair value of a derivative that was previously recorded in other comprehensive income by the application of hedge accounting is recognized in profit or loss over the remaining term of the original hedging relationship as amounts related to the hedged item are recognized in profit or loss. The assets or liabilities relating to unrealized mark-to-market gains and losses on derivative financial instruments are recorded in financial assets and financial liabilities, respectively.

i. Cash Flow Hedges

The company uses the following cash flow hedges: energy derivative contracts to hedge the sale of power; interest rate swaps to hedge the variability in cash flows or future cash flows related to a variable rate asset or liability; and equity derivatives to hedge long-term compensation arrangements. For the year ended December 31, 2019, pre-tax net unrealized losses of \$89 million (2018 – gains of \$38 million) were recorded in other comprehensive income for the effective portion of the cash flow hedges. As at December 31, 2019, there was an unrealized derivative asset balance of \$210 million relating to derivative contracts designated as cash flow hedges (2018 – \$468 million).

ii. Net Investment Hedges

The company uses foreign exchange contracts and foreign currency denominated debt instruments to manage its foreign currency exposures arising from net investments in foreign operations. For the year ended December 31, 2019, unrealized pre-tax net losses of \$433 million (2018 – gains of \$999 million) were recorded in other comprehensive income for the effective portion of hedges of net investments in foreign operations. As at December 31, 2019, there was an unrealized derivative liability balance of \$551 million relating to derivative contracts designated as net investment hedges (2018 – asset balance of \$523 million).

e) Netting of Financial Instruments

Financial assets and liabilities are offset with the net amount reported in the Consolidated Balance Sheets where the company currently has a legally enforceable right to offset and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously.

The company enters into derivative transactions under International Swaps and Derivatives Association (“ISDA”) master netting agreements. In general, under such agreements the amounts owed by each counterparty on a single day are aggregated into a single net amount that is payable by one party to the other. The agreements provide the company with the legal and enforceable right to offset these amounts and accordingly the following balances are presented net in the consolidated financial statements:

	Accounts Receivable and Other		Accounts Payable and Other	
	2019	2018	2019	2018
AS AT DEC. 31 (MILLIONS)				
Gross amounts of financial instruments before netting	\$ 2,380	\$ 2,367	\$ 2,853	\$ 1,873
Gross amounts of financial instruments set-off in Consolidated Balance Sheets..	(423)	(254)	(366)	(250)
Net amount of financial instruments in Consolidated Balance Sheets	<u>\$ 1,957</u>	<u>\$ 2,113</u>	<u>\$ 2,487</u>	<u>\$ 1,623</u>

7. ACCOUNTS RECEIVABLE AND OTHER

	Note	2019	2018
AS AT DEC. 31 (MILLIONS)			
Accounts receivable	(a)	\$ 11,129	\$ 9,167
Prepaid expenses and other assets	(a)	5,636	5,508
Restricted cash.....	(b)	1,595	1,923
Sustainable resources	(c)	109	333
Total.....		<u>\$ 18,469</u>	<u>\$ 16,931</u>

The current and non-current balances of accounts receivable and other are as follows:

	2019	2018
AS AT DEC. 31 (MILLIONS)		
Current.....	\$ 13,862	\$ 11,911
Non-current.....	4,607	5,020
Total.....	<u>\$ 18,469</u>	<u>\$ 16,931</u>

a) Accounts Receivable and Other Assets

Accounts receivable includes contract assets of \$682 million (2018 – \$641 million). Contract assets relate primarily to work-in-progress on our long-term construction services contracts for which customers have not yet been billed.

b) Restricted Cash

Restricted cash primarily relates to the company’s real estate, renewable power and private equity financing arrangements including defeasement of debt obligations, debt service accounts and deposits held by the company’s insurance operations.

c) Sustainable Resources

Dispositions of \$270 million during the year related to the sale of our investment in Acadian, which owned 1.7 million acres of consumable freehold timberlands, representing 40.3 million cubic metres of mature timber and timber available for harvest. Additions of \$77 million is attributable to the plantation of soybeans throughout the year.

The following table presents the change in the balance of timberlands and other agricultural assets:

	2019	2018
AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)		
Balance, beginning of year	\$ 333	\$ 390
Additions	77	21
Dispositions	(270)	—
Fair value adjustments	12	42
Decrease due to harvest	(39)	(89)
Foreign currency changes	(4)	(31)
Balance, end of year	<u>\$ 109</u>	<u>\$ 333</u>

The carrying values are based on external appraisals completed annually as at December 31. The appraisals utilize a combination of the discounted cash flow and sales comparison approaches to arrive at the estimated value. The significant unobservable inputs (Level 3) included in the discounted cash flow models used when determining the fair value of standing timber and agricultural assets include:

Valuation Techniques	Significant Unobservable Inputs	Relationship of Unobservable Inputs to Fair Value	Mitigating Factors
Discounted cash flow analysis	<ul style="list-style-type: none"> Future cash flows Timber / agricultural prices Discount rate / terminal capitalization rate Exit Date 	<ul style="list-style-type: none"> Increases (decreases) in future cash flows increase (decrease) fair value Increases (decreases) in price increase (decrease) fair value Increases (decreases) in discount rate or terminal capitalization rate decrease (increase) fair value Increases (decreases) in exit date decrease (increase) fair value 	<ul style="list-style-type: none"> Increases (decreases) in cash flows tend to be accompanied by increases (decreases) in discount rates that may offset changes in fair value from cash flows Increases (decreases) in price tend to be accompanied by increases (decreases) in discount rates that may offset changes in fair value from price Decreases (increases) in discount rates or terminal capitalization rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in fair value from rates Increases (decreases) in the exit date tend to be the result of changing cash flow profiles that may result in higher (lower) growth in cash flows prior to stabilizing in the terminal year

Key valuation assumptions include a weighted-average discount and terminal capitalization rate of 6.1% (2018 – 5.7%), and terminal valuation dates of up to 21 years (2018 – 30 years). Timber and agricultural asset prices were based on a combination of forward prices available in the market and price forecasts.

8. INVENTORY

AS AT DEC. 31 (MILLIONS)	2019	2018
Residential properties under development	\$ 3,007	\$ 2,001
Land held for development	1,781	1,794
Completed residential properties	998	1,398
Industrial products	2,816	914
Other ¹	1,670	882
Total	<u>\$ 10,272</u>	<u>\$ 6,989</u>

1. Other includes fuel inventory of \$690 million (2018 – \$585 million).

The current and non-current balances of inventory are as follows:

AS AT DEC. 31 (MILLIONS)	2019	2018
Current	\$ 7,054	\$ 4,578
Non-current	3,218	2,411
Total	<u>\$ 10,272</u>	<u>\$ 6,989</u>

During the year ended December 31, 2019, the company recognized \$26.5 billion (2018 – \$25.7 billion) of inventory relating to cost of goods sold and a \$38 million expense of impaired inventory (2018 – \$22 million recovery of previously impaired inventory). The carrying amount of inventory pledged as collateral at December 31, 2019 was \$4.7 billion (2018 – \$3.5 billion).

9. HELD FOR SALE

The following is a summary of the assets and liabilities classified as held for sale as at December 31, 2019 and 2018:

AS AT DEC. 31 (MILLIONS)	Infrastructure	Real Estate	Renewable Power and Other	2019 Total	2018 Total
Assets					
Cash and cash equivalents.....	\$ 42	\$ 1	\$ 15	\$ 58	\$ 21
Accounts receivable and other	120	5	49	174	112
Investment properties	—	251	—	251	617
Property, plant and equipment.....	1,307	—	423	1,730	779
Equity accounted investments.....	190	223	—	413	568
Other long-term assets.....	872	—	—	872	88
Deferred income tax assets.....	1	—	3	4	—
Assets classified as held for sale.....	<u>\$ 2,532</u>	<u>\$ 480</u>	<u>\$ 490</u>	<u>\$ 3,502</u>	<u>\$ 2,185</u>
Liabilities					
Accounts payable and other	\$ 182	\$ 2	\$ 39	\$ 223	\$ 193
Non-recourse borrowings of managed entities	774	138	159	1,071	619
Deferred income tax liabilities	364	—	32	396	—
Liabilities associated with assets classified as held for sale.....	<u>\$ 1,320</u>	<u>\$ 140</u>	<u>\$ 230</u>	<u>\$ 1,690</u>	<u>\$ 812</u>

As at December 31, 2019, assets held for sale within our Infrastructure segment include a Texas electricity transmission business, a Colombian regulated distribution business and the Australian operations of a North American based rail business.

Assets held for sale within the company's Real Estate segment include six triple net lease assets, one office asset and an equity accounted investment in the U.S.

Within our Renewable Power segment, we are currently holding for sale solar assets in South Africa and Asia. Our Private Equity segment has assets and liabilities from its cold storage logistics business in their business services segment being classified as held for sale.

During the 2019 fiscal year, we disposed of \$6.9 billion and \$2.8 billion of assets and liabilities held for sale, respectively. The majority of disposals related to our Real Estate segment, with \$5.8 billion of assets held for sale and \$2.1 billion of liabilities held for sale being disposed of.

10. EQUITY ACCOUNTED INVESTMENTS

The following table presents the ownership interests and carrying values of the company's investments in associates and joint ventures, all of which are accounted for using the equity method:

AS AT DEC. 31 (MILLIONS)	Ownership Interest ¹		Carrying Value	
	2019	2018	2019	2018
Oaktree.....	61%	n/a	\$ 5,231	\$ —
Real estate				
Associates				
Core office	n/a	7 – 23%	—	107
LP investments and other.....	30 – 90%	6 – 90%	307	1,173
Joint ventures				
Core office	14 – 56%	15 – 56%	9,440	8,258
Core retail ²	12 – 68%	12 – 68%	10,555	11,159
LP investments and other.....	18 – 80%	12 – 90%	2,012	2,252
			<u>22,314</u>	<u>22,949</u>
Infrastructure				
Associates				
Utilities	11 – 50%	11 – 50%	962	339
Transport.....	26 – 58%	26 – 58%	4,033	4,100
Data infrastructure	45 – 50%	45%	2,920	1,705
Other	22 – 50%	22 – 50%	156	232
Joint ventures				
Energy	50%	50%	716	1,121
Other	50%	50%	185	139
			<u>8,972</u>	<u>7,636</u>
Private equity				
Associates				
Norbord.....	43%	42%	1,185	1,287
Industrial operations	24 – 54%	24 – 50%	854	73
Other	25 – 90%	13 – 90%	557	583
			<u>2,596</u>	<u>1,943</u>
Renewable power and other				
Renewable power associates	14 – 60%	14 – 60%	1,154	685
Other equity accounted investments ²	16 – 85%	18 – 85%	431	434
			<u>1,585</u>	<u>1,119</u>
Total			<u>\$ 40,698</u>	<u>\$ 33,647</u>

1. Joint ventures or associates in which the ownership interest is greater than 50% represent investments for which control is either shared or does not exist resulting in the investment being equity accounted.

2. Carrying value of joint ventures in other equity accounted investments is \$383 million (2018 – \$395 million).

The following tables presents the change in the balance of investments in associates and joint ventures:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	Oaktree	Real Estate	Infrastructure	Private Equity	Renewable Power and Other	2019 Total	2018 Total
Balance, beginning of year ..	\$ —	\$ 22,949	\$ 7,636	\$ 1,943	\$ 1,119	\$ 33,647	\$ 31,994
Net additions (disposals).....	5,251	(1,932)	1,067	(150)	440	4,676	(9,772)
Acquisitions through business combinations	—	—	48	847	—	895	12,752
Share of comprehensive income.....	26	1,986	537	97	169	2,815	1,606
Distributions received.....	(45)	(810)	(166)	(122)	(157)	(1,300)	(1,903)
Foreign exchange.....	(1)	121	(150)	(19)	14	(35)	(1,030)
Balance, end of year.....	\$ 5,231	\$ 22,314	\$ 8,972	\$ 2,596	\$ 1,585	\$ 40,698	\$ 33,647

Additions, net of disposals, of \$4.7 billion in 2019 relate primarily to the acquisition of a \$5.3 billion interest in Oaktree. As part of the Oaktree transaction, we received a distribution on closing from Oaktree for \$306 million, and recognized deferred consideration of \$365 million related to the settlement of certain pre-existing agreements.

In addition, we acquired an equity accounted interest in a Brazilian data center operation, a New Zealand integrated data provider and a natural gas transmission business in Mexico within our Infrastructure segment. This was partially offset by the consolidation of a previously equity-accounted portfolio of retail malls within our Real Estate segment.

The following table presents current and non-current assets, as well as current and non-current liabilities of the company's investments in associates and joint ventures:

AS AT DEC. 31 (MILLIONS)	2019				2018			
	Current Assets	Non- Current Assets	Current Liabilities	Non- Current Liabilities	Current Assets	Non- Current Assets	Current Liabilities	Non- Current Liabilities
Oaktree.....	\$ 1,497	\$ 16,870	\$ 1,172	\$ 7,434	\$ —	\$ —	\$ —	\$ —
Real estate								
Associates								
Core office.....	1	—	—	—	15	1,998	12	457
LP investments and other	31	955	15	390	86	3,430	56	966
Joint ventures								
Core office.....	2,790	36,861	4,824	13,987	1,789	33,245	2,766	13,998
Core retail.....	992	35,726	615	14,334	832	40,136	734	16,537
LP investments and other	648	9,559	648	5,247	686	11,645	776	5,256
Infrastructure								
Associates								
Utilities.....	869	6,500	687	4,152	289	2,227	325	1,391
Transport	1,199	18,028	1,953	8,359	1,507	15,676	1,871	6,358
Data infrastructure.....	912	11,636	1,042	4,908	447	6,692	438	2,902
Other.....	21	374	27	133	118	659	117	117
Joint ventures								
Energy	154	5,455	249	3,927	165	5,034	144	2,813
Other.....	35	299	6	93	13	216	5	89
Private equity								
Associates								
Norbord	462	3,911	260	1,355	509	4,574	363	1,204
Industrial operations.....	1,038	743	485	256	38	277	27	136
Other.....	793	2,362	697	1,562	892	1,910	601	1,004
Renewable power and other								
Renewable power associates.....	539	5,967	535	2,530	182	2,845	93	974
Other equity accounted investments	1,022	—	118	113	1,081	53	142	152
	<u>\$13,003</u>	<u>\$155,246</u>	<u>\$ 13,333</u>	<u>\$ 68,780</u>	<u>\$ 8,649</u>	<u>\$130,617</u>	<u>\$ 8,470</u>	<u>\$ 54,354</u>

Certain of the company's investments in associates are subject to restrictions on the extent to which they can remit funds to the company in the form of cash dividends or repay loans and advances as a result of borrowing arrangements, regulatory restrictions and other contractual requirements.

The following table presents total revenues, net income and other comprehensive income (“OCI”) of the company’s investments in associates and joint ventures:

AS AT DEC. 31 (MILLIONS)	2019			2018		
	Revenue	Net Income	OCI	Revenue	Net Income	OCI
Oaktree	\$ 295	\$ 12	\$ (6)	—	\$ —	\$ —
Real estate						
Associates						
Core office.....	—	1	—	60	71	—
Core retail.....	—	—	—	1,536	(1,013)	(15)
LP investments and other	423	126	50	545	301	191
Joint ventures						
Core office.....	2,386	1,869	(105)	1,559	1,544	(34)
Core retail.....	2,430	2,114	—	889	449	—
LP investments and other	714	23	—	342	487	(2)
Infrastructure						
Associates						
Utilities.....	1,046	354	26	541	92	110
Transport.....	3,277	3	363	3,673	(309)	(826)
Data infrastructure.....	1,447	(38)	57	804	64	244
Other.....	55	(45)	(210)	84	83	363
Joint ventures						
Energy	696	358	—	695	92	—
Other.....	74	19	—	75	19	(29)
Private equity						
Associates						
Norbord.....	1,731	(165)	13	2,424	248	(21)
Industrial operations.....	1,770	122	—	445	62	(21)
Other.....	1,007	247	26	1,502	86	(15)
Renewable power and other						
Renewable power associates.....	431	88	242	491	79	469
Other equity accounted investments.....	400	104	1	133	44	(3)
	<u>\$ 18,182</u>	<u>\$ 5,192</u>	<u>\$ 457</u>	<u>\$ 15,798</u>	<u>\$ 2,399</u>	<u>\$ 411</u>

Certain of the company’s investments are publicly listed entities with active pricing in a liquid market. The fair value based on the publicly listed price of these equity accounted investments in comparison to the company’s carrying value is as follows:

AS AT DEC. 31 (MILLIONS)	2019		2018	
	Public Price	Carrying Value	Public Price	Carrying Value
Norbord	\$ 930	\$ 1,185	\$ 925	\$ 1,287
Other	38	—	36	—
	<u>\$ 968</u>	<u>\$ 1,185</u>	<u>\$ 961</u>	<u>\$ 1,287</u>

11. INVESTMENT PROPERTIES

The following table presents the change in the fair value of the company's investment properties:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Fair value, beginning of year	\$ 84,309	\$ 56,870
Additions	11,638	3,069
Acquisitions through business combinations	3,669	33,024
Increase attributable to adoption of accounting standards ¹	928	—
Dispositions ²	(6,029)	(8,555)
Fair value changes	1,710	1,610
Foreign currency translation and other	461	(1,709)
Fair value, end of year ³	<u>\$ 96,686</u>	<u>\$ 84,309</u>

1. The company's adoption of IFRS 16 resulted in the recognition of ROU investment properties that were previously off-balance sheet items. Refer to Note 2 for additional information.

2. Includes amounts reclassified to held for sale.

3. As at December 31, 2019, the ending balance includes \$88.5 billion of investment properties leased to third parties. Also included in the ending balance is approximately \$2.6 billion of ROU investment property balances.

Investment properties include the company's office, retail, multifamily, logistics and other properties as well as highest and best-use land within the company's sustainable resources operations. Additions of \$11.6 billion primarily relates to the purchases of investment properties and enhancement of existing assets during the year.

Dispositions of \$6.0 billion for the year ended December 31, 2019 included the sale of multiple investment properties held within Forest City, several Australian and New York office properties and various multifamily assets.

Investment properties generated \$5.8 billion (2018 – \$5.4 billion) in rental income and incurred \$2.4 billion (2018 – \$2.1 billion) in direct operating expenses. Most of our investment properties are pledged as collateral for the non-recourse borrowings at their respective properties.

The following table presents our investment properties measured at fair value:

AS AT DEC. 31 (MILLIONS)	2019	2018
Core office		
United States	\$ 15,748	\$ 15,237
Canada	4,806	4,245
Australia	2,300	2,391
Europe	2,867	1,331
Brazil	361	329
Core retail	21,561	17,607
LP investments and other		
LP investments office	8,756	8,438
LP investments retail	2,812	3,414
Logistics	94	183
Multifamily	2,937	4,151
Triple net lease	4,508	5,067
Self-storage	1,007	931
Student housing	2,605	2,417
Manufactured housing	2,446	2,369
Mixed-Use	2,703	12,086
Directly-held real estate properties	19,814	2,750
Other investment properties	1,361	1,363
	<u>\$ 96,686</u>	<u>\$ 84,309</u>

Significant unobservable inputs (Level 3) are utilized when determining the fair value of investment properties. The significant Level 3 inputs include:

Valuation Technique	Significant Unobservable Inputs	Relationship of Unobservable Inputs to Fair Value	Mitigating Factors
Discounted cash flow analysis ¹	<ul style="list-style-type: none"> Future cash flows – primarily driven by net operating income Discount rate Terminal capitalization rate Investment horizon 	<ul style="list-style-type: none"> Increases (decreases) in future cash flows increase (decrease) fair value Increases (decreases) in discount rate decrease (increase) fair value Increases (decreases) in terminal capitalization rate decrease (increase) fair value Increases (decreases) in the investment horizon decrease (increase) fair value 	<ul style="list-style-type: none"> Increases (decreases) in cash flows tend to be accompanied by increases (decreases) in discount rates that may offset changes in fair value from cash flows Increases (decreases) in discount rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in fair value from discount rates Increases (decreases) in terminal capitalization rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in fair value from terminal capitalization rates Increases (decreases) in the investment horizon tend to be the result of changing cash flow profiles that may result in higher (lower) growth in cash flows prior to stabilizing in the terminal year

1. Certain investment properties are valued using the direct capitalization method instead of a discounted cash flow model. Under the direct capitalization method, a capitalization rate is applied to estimated current year cash flows.

The company's investment properties are diversified by asset type, asset class, geography and markets. Therefore, there may be mitigating factors in addition to those noted above such as changes to assumptions that vary in direction and magnitude across different geographies and markets.

The following table summarizes the key valuation metrics of the company's investment properties:

	2019			2018		
	Discount Rate	Terminal Capitalization Rate	Investment Horizon (years)	Discount Rate	Terminal Capitalization Rate	Investment Horizon (years)
AS AT DEC. 31						
Core office						
United States	7.0%	5.6%	12	6.9%	5.6%	12
Canada	5.9%	5.2%	10	6.0%	5.4%	10
Australia	6.8%	5.9%	10	7.0%	6.2%	10
Europe	4.6%	4.1%	11	n/a	n/a	n/a
Brazil	7.9%	7.4%	10	9.6%	7.7%	6
Core retail	6.7%	5.4%	10	7.1%	6.0%	12
LP investments and other						
LP investments office	10.0%	7.3%	7	10.2%	7.0%	6
LP investments retail	8.8%	7.3%	10	8.9%	7.8%	9
Mixed-use	7.6%	5.4%	10	7.8%	5.4%	10
Logistics ¹	5.8%	n/a	n/a	9.3%	8.3%	10
Multifamily ¹	5.1%	n/a	n/a	4.8%	n/a	n/a
Triple net lease ¹	6.3%	n/a	n/a	6.3%	n/a	n/a
Self-storage ¹	5.6%	n/a	n/a	5.7%	n/a	n/a
Student housing ¹	5.8%	n/a	n/a	5.6%	n/a	n/a
Manufactured housing ¹	5.5%	n/a	n/a	5.4%	n/a	n/a
Directly-held real estate properties ² ...	5.2% – 9.2%	6.1%	19	7.4%	6.8%	10
Other investment properties ¹	8.9%	n/a	n/a	9.3%	n/a	n/a

1. Multifamily, triple net lease, self-storage, student housing, manufactured housing and other investment properties are valued using the direct capitalization method. The rates presented as the discount rate represent the overall implied capitalization rate. The terminal capitalization rate and the investment horizon are not applicable.

2. We use either the discounted cash flow or the direct capitalization method when valuing our directly-held real estate properties. The rates presented as the discount rate represent the overall implied capitalization rates for investment properties that are valued using the direct capitalization approach.

12. PROPERTY, PLANT AND EQUIPMENT

The company's property, plant and equipment relates to the operating segments as shown below:

AS AT DEC. 31 (MILLIONS)	Renewable Power (a)		Infrastructure (b)		Real Estate (c)		Private Equity and Other (d)		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Costs	\$27,820	\$26,108	\$22,454	\$12,059	\$ 9,890	\$ 7,713	\$17,269	\$ 9,027	\$77,433	\$54,907
Accumulated fair value changes	20,465	18,260	3,777	3,480	1,366	1,045	(643)	(434)	24,965	22,351
Accumulated depreciation.....	(6,690)	(5,497)	(2,459)	(1,889)	(1,527)	(1,106)	(2,458)	(1,472)	(13,134)	(9,964)
Total ^{1,2}	\$41,595	\$38,871	\$23,772	\$13,650	\$ 9,729	\$ 7,652	\$14,168	\$ 7,121	\$89,264	\$67,294

1. Includes amounts reclassified to held for sale.

2. As at December 31, 2019, the total includes \$3.7 billion of property, plant and equipment leased to third parties as operating leases. Our ROU PP&E assets include \$2.2 billion in our Infrastructure segment, \$796 million in our Real Estate segment, \$1.1 billion in our Renewable Power segment and \$1.3 billion in Private Equity and other segments, totaling \$5.4 billion of ROU assets.

Renewable Power, Infrastructure and Real Estate segments carry property, plant and equipment assets at fair value, classified as Level 3 in the fair value hierarchy due to the use of significant unobservable inputs when determining fair value. Private Equity and other segments carry property, plant and equipment assets at amortized cost. The carrying amount that would have been recognized had our assets been accounted for under the cost model is \$51.7 billion. As at December 31, 2019, \$66.3 billion (2018 – \$50.5 billion) of property, plant and equipment, at cost, were pledged as collateral for the property debt at their respective properties.

a) Renewable Power

Our renewable power property, plant and equipment consists of the following:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	Hydroelectric		Wind		Solar and Other		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Cost, beginning of year	\$ 13,868	\$ 14,667	\$ 8,576	\$ 7,622	\$ 3,664	\$ 2,702	\$ 26,108	\$ 24,991
Changes in basis of accounting	83	—	321	—	3	—	407	—
Additions, net of disposals and assets reclassified as held for sale	162	189	(342)	(21)	280	(684)	100	(516)
Acquisitions through business combinations	—	—	566	1,184	742	1,784	1,308	2,968
Foreign currency translation	(14)	(988)	(54)	(209)	(35)	(138)	(103)	(1,335)
Cost, end of year	14,099	13,868	9,067	8,576	4,654	3,664	27,820	26,108
Accumulated fair value changes, beginning of year.....	15,416	12,176	2,079	1,053	765	51	18,260	13,280
Fair value changes.....	1,369	3,688	669	1,221	195	702	2,233	5,611
Dispositions and assets reclassified as held for sale	—	—	(126)	—	(35)	—	(161)	—
Foreign currency translation	142	(448)	(34)	(195)	25	12	133	(631)
Accumulated fair value changes, end of year ..	16,927	15,416	2,588	2,079	950	765	20,465	18,260
Accumulated depreciation, beginning of year .	(3,879)	(3,564)	(1,358)	(1,008)	(260)	(109)	(5,497)	(4,681)
Depreciation expenses.....	(532)	(547)	(502)	(416)	(245)	(192)	(1,279)	(1,155)
Dispositions and assets reclassified as held for sale.....	7	5	101	6	9	35	117	46
Foreign currency translation	(8)	227	(22)	60	(1)	6	(31)	293
Accumulated depreciation, end of year.....	(4,412)	(3,879)	(1,781)	(1,358)	(497)	(260)	(6,690)	(5,497)
Balance, end of year	\$ 26,614	\$ 25,405	\$ 9,874	\$ 9,297	\$ 5,107	\$ 4,169	\$ 41,595	\$ 38,871

The following table presents our renewable power property, plant and equipment measured at fair value by geography:

AS AT DEC. 31 (MILLIONS)	2019	2018
North America	\$ 25,617	\$ 24,274
Colombia	7,353	6,665
Europe	3,770	3,748
Brazil	3,575	3,505
Other ¹	1,280	679
	<u>\$ 41,595</u>	<u>\$ 38,871</u>

1. Other refers primarily to China, India and Chile in 2019 and China, India, Chile and Uruguay in 2018.

Renewable power assets are accounted for under the revaluation model and the most recent date of revaluation was December 31, 2019. Valuations utilize significant unobservable inputs (Level 3) when determining the fair value of renewable power assets. The significant Level 3 inputs include:

Valuation Technique	Significant Unobservable Inputs	Relationship of Unobservable Inputs to Fair Value	Mitigating Factors
Discounted cash flow analysis	• Future cash flows – primarily impacted by future electricity price assumptions	• Increases (decreases) in future cash flows increase (decrease) fair value	• Increases (decreases) in cash flows tend to be accompanied by increases (decreases) in discount rates that may offset changes in fair value from cash flows
	• Discount rate	• Increases (decreases) in discount rate decrease (increase) fair value	• Increases (decreases) in discount rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in fair value from discount rates
	• Terminal capitalization rate	• Increases (decreases) in terminal capitalization rate decrease (increase) fair value	• Increases (decreases) in terminal capitalization rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in fair value from terminal capitalization rates
	• Exit date	• Increases (decreases) in the exit date decrease (increase) fair value	• Increases (decreases) in the exit date tend to be the result of changing cash flow profiles that may result in higher (lower) growth in cash flows prior to stabilizing in the terminal year

Key valuation metrics of the company's hydroelectric, wind and solar generating facilities at the end of 2019 and 2018 are summarized below.

	North America		Brazil		Colombia		Europe	
AS AT DEC. 31	2019	2018	2019	2018	2019	2018	2019	2018
Discount rate								
Contracted	4.6 – 4.9%	4.8 – 5.6%	8.2%	9.0%	9.0%	9.6%	3.5%	4.0 – 4.3%
Uncontracted	6.2 – 6.4%	6.4 – 7.2%	9.5%	10.3%	10.3%	10.9%	5.3%	5.8 – 6.1%
Terminal capitalization rate ¹ ...	6.2 – 6.4%	6.1 – 7.1%	n/a	n/a	9.8%	10.4%	n/a	n/a
Exit date	2040	2039	2047	2047	2039	2038	2034	2033

1. Terminal capitalization rate applies only to hydroelectric assets in North America and Colombia.

Terminal values are included in the valuation of hydroelectric assets in the United States, Canada and Colombia. For the hydroelectric assets in Brazil, cash flows have been included based on the duration of the authorization or useful life of a concession asset without consideration of potential renewal value. The weighted-average remaining duration as at December 31, 2019, which includes a one-time 30-year renewal for applicable hydroelectric assets completed in the current year, is 32 years (2018 – 29 years). Consequently, there is no terminal value attributed to the hydroelectric assets in Brazil.

Key assumptions on contracted generation and future power pricing are summarized below:

AS AT DEC. 31, 2019 (MILLIONS)	Total Generation Contracted under Power Purchase Agreements		Power Prices from Long- Term Power Purchase Agreements (weighted average)		Estimates of Future Electricity Prices (weighted average)	
	1 – 10 years	11 – 20 years	1 – 10 years	11 – 20 years	1 – 10 years	11 – 20 years
North America (prices in US\$/MWh).	47%	17%	95	87	62	122
Brazil (prices in R\$/MWh)	68%	33%	295	407	273	411
Colombia (prices in COP\$/MWh)	25%	—%	217,000	272,000	257,000	358,000
Europe (prices in €/MWh)	71%	13%	82	102	75	84

The company's estimate of future renewable power pricing is based on management's estimate of the cost of securing new energy from renewable sources to meet future demand between 2023 and 2035 (2018 – between 2022 and 2025), which will maintain system reliability and provide adequate levels of reserve generation.

b) Infrastructure

Our infrastructure property, plant and equipment consists of the following:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	Utilities		Transport		Energy		Data Infrastructure		Sustainable Resources and Other		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Cost, beginning of year	\$4,020	\$3,473	\$ 2,485	\$2,655	\$ 4,681	\$2,630	\$ 444	\$ —	\$ 429	\$ 495	\$ 12,059	\$ 9,253
Changes in basis of accounting	21	—	356	—	197	—	633	—	—	—	1,207	—
Additions, net of disposals and assets reclassified as held for sale	7	422	171	73	164	146	(44)	4	(25)	(2)	273	643
Acquisitions through business combinations	—	394	5,284	—	3,332	2,111	94	440	—	—	8,710	2,945
Foreign currency translation	138	(269)	9	(243)	69	(206)	4	—	(15)	(64)	205	(782)
Cost, end of year	4,186	4,020	8,305	2,485	8,443	4,681	1,131	444	389	429	22,454	12,059
Accumulated fair value changes, beginning of year	1,401	1,256	810	873	822	629	—	—	447	514	3,480	3,272
Disposition and assets reclassified as held for sale	(416)	—	—	—	—	—	—	—	(37)	—	(453)	—
Fair value changes	347	218	45	18	317	224	—	—	6	12	715	472
Foreign currency translation	36	(73)	(6)	(81)	5	(31)	—	—	—	(79)	35	(264)
Accumulated fair value changes, end of year	1,368	1,401	849	810	1,144	822	—	—	416	447	3,777	3,480
Accumulated depreciation, beginning of year	(613)	(509)	(744)	(687)	(492)	(383)	—	—	(40)	(43)	(1,889)	(1,622)
Depreciation expenses	(171)	(148)	(178)	(147)	(328)	(134)	(87)	—	(10)	(8)	(774)	(437)
Dispositions and assets reclassified as held for sale	204	5	(25)	22	46	7	—	—	7	4	232	38
Foreign currency translation	(16)	39	(3)	68	(10)	18	(1)	—	2	7	(28)	132
Accumulated depreciation, end of year	(596)	(613)	(950)	(744)	(784)	(492)	(88)	—	(41)	(40)	(2,459)	(1,889)
Balance, end of year	\$4,958	\$4,808	\$ 8,204	\$2,551	\$ 8,803	\$5,011	\$1,043	\$ 444	\$ 764	\$ 836	\$ 23,772	\$ 13,650

Infrastructure's PP&E assets are accounted for under the revaluation model, and the most recent date of revaluation was December 31, 2019. The company's utilities assets consist of regulated transmission and regulated distribution networks, which are operated primarily under regulated rate base arrangements. In the company's transport operations, the PP&E assets consist of railroads, toll roads and ports. PP&E assets in the energy operations are comprised of energy transmission, distribution and storage and district energy assets. Data infrastructure PP&E include mainly telecommunications towers, fiber optic networks and data storage assets. PP&E within our sustainable resource operations include standing timber, land, roads and other agricultural assets.

Valuations utilize significant unobservable inputs (Level 3) when determining the fair value of infrastructure's utilities, transport, energy, data infrastructure and sustainable resources assets. The significant Level 3 inputs include:

Valuation Technique	Significant Unobservable Inputs	Relationship of Unobservable Inputs to Fair Value	Mitigating Factors
Discounted cash flow analysis	• Future cash flows	• Increases (decreases) in future cash flows increase (decrease) fair value	• Increases (decreases) in cash flows tend to be accompanied by increases (decreases) in discount rates that may offset changes in fair value from cash flows
	• Discount rate	• Increases (decreases) in discount rate decrease (increase) fair value	• Increases (decreases) in discount rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in fair value from discount rates
	• Terminal capitalization multiple	• Increases (decreases) in terminal capitalization multiple increases (decreases) fair value	• Increases (decreases) in terminal capitalization multiple tend to be accompanied by increases (decreases) in cash flows that may offset changes in fair value from terminal capitalization multiple
	• Investment horizon	• Increases (decreases) in the investment horizon decrease (increase) fair value	• Increases (decreases) in the investment horizon tend to be the result of changing cash flow profiles that may result in higher (lower) growth in cash flows prior to stabilizing in the terminal year

Key valuation metrics of the company's utilities, transport, energy, data infrastructure and sustainable resources assets at the end of 2019 and 2018 are summarized below.

	Utilities		Transport		Energy		Data Infrastructure		Sustainable Resources	
AS AT DEC. 31	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Discount rates	7 – 14%	7 – 14%	9 – 14%	10 – 13%	12 – 15%	12 – 15%	13 – 15%	13 – 15%	5 – 10%	5 – 8%
Terminal capitalization multiples ...	8x – 21x	8x – 22x	9x – 14x	9x – 14x	10x – 17x	10x – 14x	11x – 17x	10x – 11x	5x – 10x	12x – 23x
Investment horizon / Exit date (years)	10 – 20	10 – 20	10 – 20	10 – 20	5 – 10	10	10 – 11	10	3 – 21	3 – 30

c) Real Estate

	Cost		Accumulated Fair Value Changes		Accumulated Depreciation		Total	
AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018	2019	2018	2019	2018	2019	2018
Balance, beginning of year	\$ 7,713	\$ 5,854	\$ 1,045	\$ 798	\$ (1,106)	\$ (873)	\$ 7,652	\$ 5,779
Changes in basis of accounting	769	—	—	—	—	—	769	—
Additions/(dispositions) ¹ , net of assets reclassified as held for sale	514	352	(2)	5	37	43	549	400
Acquisitions through business combinations ..	785	1,748	—	—	—	—	785	1,748
Foreign currency translation	109	(241)	—	(3)	(15)	27	94	(217)
Fair value changes	—	—	323	245	—	—	323	245
Depreciation expenses	—	—	—	—	(443)	(303)	(443)	(303)
Balance, end of year	\$ 9,890	\$ 7,713	\$ 1,366	\$ 1,045	\$ (1,527)	\$ (1,106)	\$ 9,729	\$ 7,652

1. For accumulated depreciation, (additions)/dispositions.

The company's real estate PP&E assets include hospitality assets accounted for under the revaluation model, with the most recent revaluation as at December 31, 2019. The company determined fair value for these assets by using the depreciated replacement cost method. Valuations utilize significant unobservable inputs (Level 3) when determining the fair value of real estate assets. The significant Level 3 inputs include estimates of assets' replacement cost and remaining economic life.

d) Private Equity and Other

Private equity and other PP&E includes assets owned by the company's private equity and residential development operations. These assets are accounted for under the cost model, which requires the assets to be carried at cost less accumulated depreciation and any accumulated impairment losses. The following table presents the changes to the carrying value of the company's property, plant and equipment assets included in these operations:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	Cost		Accumulated Impairment		Accumulated Depreciation		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Balance, beginning of year	\$ 9,027	\$ 4,050	\$ (434)	\$ (231)	\$ (1,472)	\$ (1,086)	\$ 7,121	\$ 2,733
Changes in basis of accounting	1,032	—	—	—	—	—	1,032	—
Additions/(dispositions) ¹ , net of assets reclassified as held for sale.....	477	360	—	1	332	72	809	433
Acquisitions through business combinations ..	6,650	4,915	—	—	—	—	6,650	4,915
Foreign currency translation.....	83	(298)	(13)	15	(44)	78	26	(205)
Depreciation expenses.....	—	—	—	—	(1,274)	(536)	(1,274)	(536)
Impairment charges	—	—	(196)	(219)	—	—	(196)	(219)
Balance, end of year	<u>\$ 17,269</u>	<u>\$ 9,027</u>	<u>\$ (643)</u>	<u>\$ (434)</u>	<u>\$ (2,458)</u>	<u>\$ (1,472)</u>	<u>\$ 14,168</u>	<u>\$ 7,121</u>

1. For accumulated depreciation, (additions)/dispositions.

13. INTANGIBLE ASSETS

The following table presents the breakdown of, and changes to, the balance of the company's intangible assets:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	Cost		Accumulated Amortization and Impairment		Total	
	2019	2018	2019	2018	2019	2018
Balance, beginning of year	\$ 20,304	\$ 15,251	\$ (1,542)	\$ (1,009)	\$ 18,762	\$ 14,242
Additions ¹	445	288	—	—	445	288
Disposals	(499)	(22)	132	16	(367)	(6)
Acquisitions through business combinations	10,333	6,590	—	—	10,333	6,590
Amortization.....	—	—	(1,141)	(659)	(1,141)	(659)
Foreign currency translation.....	(351)	(1,803)	29	110	(322)	(1,693)
Balance, end of year	<u>\$ 30,232</u>	<u>\$ 20,304</u>	<u>\$ (2,522)</u>	<u>\$ (1,542)</u>	<u>\$ 27,710</u>	<u>\$ 18,762</u>

1. Includes assets sold and amounts reclassified to held for sale.

The following table presents intangible assets by geography:

AS AT DEC. 31 (MILLIONS)	2019	2018
Brazil	\$ 6,413	\$ 6,270
United States.....	6,826	2,986
Canada	2,263	2,051
Mexico	1,200	—
Australia	1,985	1,873
United Kingdom	2,637	1,860
Europe.....	2,090	144
Peru.....	1,161	1,118
Chile	814	928
India	1,045	843
Other	1,276	689
	<u>\$ 27,710</u>	<u>\$ 18,762</u>

Intangible assets are allocated to the following operating segments:

AS AT DEC. 31 (MILLIONS)	Note	2019	2018
Infrastructure	(a)	\$ 14,388	\$ 11,641
Private equity	(b)	11,650	5,523
Real estate	(c)	1,301	1,179
Renewable power and other		371	419
		<u>\$ 27,710</u>	<u>\$ 18,762</u>

a) Infrastructure

The intangible assets in our Infrastructure segment are primarily related to:

- Concession arrangements of \$3.9 billion (2018 – \$4.2 billion) at the company's Brazilian regulated gas transmission operation that provide the right to charge a tariff over the term of the agreements. The agreements have an expiration date between 2039 and 2041, which is the basis for the company's determination of its remaining useful life. Upon expiry of the agreements, the asset shall be returned to the government and the concession will be subject to a public bidding process.
- Customer relationships, operating network agreements and track access rights of \$2.0 billion (2018 – \$nil) in our North American rail operations. These intangible assets are amortized straight-line over 10 to 20 years.
- Access agreements of \$1.8 billion (2018 – \$1.8 billion) with the users of the company's Australian regulated terminal which are 100% take-or-pay contracts at a designated tariff rate based on the asset value. The access arrangements have an expiration date of 2051 and the company has an option to extend the arrangement an additional 49 years. The aggregate duration of the arrangements and the extension option represents the remaining useful life.
- Concession arrangements totaling \$2.7 billion (2018 – \$2.9 billion) relating to the company's Peruvian, Chilean and Indian toll roads which provide the right to charge a tariff to users of the roads over the terms of the concessions. The Chilean and Peruvian concessions have expiration dates of 2033 and 2043 while the Indian concessions have expiration dates of 2026, 2040 and 2041. The company uses these expiration dates as a basis for determining the assets' remaining useful lives.
- Contractual customer relationships, customer contracts and proprietary technology of \$1.4 billion (2018 – \$1.4 billion) at the company's North American residential energy infrastructure operations. These assets are amortized straight line over 10 to 20 years.
- Indefinite life intangible assets of \$667 million (2018 – \$653 million). The increase from 2018 is primarily attributable to the brand value at our recently acquired North American residential energy infrastructure operations.

b) Private Equity

The intangible assets in our Private Equity segment are primarily related to:

- Customer relationships of \$5.3 billion (2018 – \$969 million). The increase from 2018 is primarily attributable to customer relationships acquired through our acquisition of Clarios. The customer relationships acquired is assessed to have a useful life of up to 16 years.
- Water and sewage concession agreements, the majority of which are arrangements with municipal governments across Brazil, of \$1.8 billion (2018 – \$1.8 billion). The concession agreements provide the company the right to charge fees to users over the terms of the agreements in exchange for water treatment services, ongoing and regular maintenance work on water distribution assets and improvements to the water treatment and distribution systems. The concession agreements have expiration dates that range from 2037 to 2055 which is the basis for the company's determination of its remaining useful life. Upon expiry of the agreements, the assets shall be returned to the government.
- Computer software, patents, trademarks and proprietary technology of \$3.2 billion (2018 – \$2.1 billion). The increase from 2018 is primarily attributable to proprietary technology acquired from Clarios. The proprietary technology has the potential to provide competitive advantages and product differentiation and is assessed to have a useful life of 20 years.

c) Real Estate

The company's intangible assets in its Real Estate segment are primarily attributable to indefinite life trademarks associated with its hospitality assets, Center Parcs U.K. and Atlantis. The Center Parcs and Atlantis trademark assets have been determined to have an indefinite useful life as the company has the legal right to operate these trademarks exclusively in certain territories and in perpetuity. The business models of Center Parcs and Atlantis are not subject to technological obsolescence or commercial innovations in any material way.

Inputs Used to Determine Recoverable Amounts of Intangible Assets

We test finite life intangible assets for impairment when an impairment indicator is identified. Indefinite life intangible assets are tested for impairment annually. We use a discounted cash flow valuation to determine the recoverable amount and consider the following significant unobservable inputs as part of our valuation:

Valuation Technique	Significant Unobservable Input(s)	Relationship of Unobservable Input(s) to Fair Value	Mitigating Factor(s)
Discounted cash flow models	• Future cash flows	• Increases (decreases) in future cash flows increase (decrease) the recoverable amount	• Increases (decreases) in cash flows tend to be accompanied by increases (decreases) in discount rates that may offset changes in recoverable amounts from cash flows
	• Discount rate	• Increases (decreases) in discount rate decrease (increase) the recoverable amount	• Increases (decreases) in discount rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in recoverable amounts from discount rates
	• Terminal capitalization rate	• Increases (decreases) in terminal capitalization rate decrease (increase) the recoverable amount	• Increases (decreases) in terminal capitalization rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in recoverable amounts from terminal capitalization rates
	• Exit date	• Increases (decreases) in the exit date decrease (increase) the recoverable amount	• Increases (decreases) in the exit date tend to be the result of changing cash flow profiles that may result in higher (lower) growth in cash flows prior to stabilizing in the terminal year

14. GOODWILL

The following table presents the breakdown of, and changes to, the balance of goodwill:

AS AT AND FOR THE YEARS ENDED DEC. 31 (MILLIONS)	Cost		Accumulated Impairment		Total	
	2019	2018	2019	2018	2019	2018
Balance, beginning of year	\$ 9,198	\$ 5,707	\$ (383)	\$ (390)	\$ 8,815	\$ 5,317
Acquisitions through business combinations	6,125	4,158	—	—	6,125	4,158
Impairment losses	—	—	(453)	—	(453)	—
Foreign currency translation and other ¹	89	(667)	(26)	7	63	(660)
Balance, end of year	<u>\$ 15,412</u>	<u>\$ 9,198</u>	<u>\$ (862)</u>	<u>\$ (383)</u>	<u>\$ 14,550</u>	<u>\$ 8,815</u>

1. Includes adjustment to goodwill based on final purchase price allocation.

The following table presents goodwill by geography:

AS AT DEC. 31 (MILLIONS)	2019	2018
Europe	\$ 3,949	\$ 2,131
United States	2,843	1,306
Australia	2,293	876
Canada	2,169	1,923
Colombia	1,428	1,384
Brazil	862	762
Other	1,006	433
	<u>\$ 14,550</u>	<u>\$ 8,815</u>

Goodwill is allocated to the following operating segments:

AS AT DEC. 31 (MILLIONS)	Note	2019	2018
Infrastructure	(a)	\$ 6,553	\$ 3,859
Private equity	(b)	5,218	2,411
Real estate	(c)	1,357	1,157
Renewable power	(d)	977	941
Asset management		328	328
Other		117	119
Total		<u>\$ 14,550</u>	<u>\$ 8,815</u>

a) Infrastructure

Goodwill in our Infrastructure segment increased primarily from acquisitions completed in 2019, including Genesee & Wyoming (\$2.0 billion), a federally regulated western Canadian natural gas midstream business (\$218 million) and a U.K. telecommunication business (\$301 million).

In addition to goodwill from acquisitions completed in 2019, we have goodwill attributed to Enercare (\$1.3 billion), a Brazilian regulated gas transmission operation (\$632 million), a portfolio of North American data centers (\$486 million) and a Colombian natural gas distribution operation (\$542 million).

Goodwill attributable to our Brazilian regulated gas transmission arose from the inclusion of a deferred tax liability as the tax bases of the net assets acquired were lower than their fair values. The goodwill is recoverable as long as the tax circumstances that gave rise to the goodwill do not change. To date, no such changes have occurred.

The valuation assumptions used to determine the recoverable amount of goodwill has been determined using a discounted cash flow model. The key inputs are discount rates ranging from 12% – 14%, terminal capitalization multiples of 8x – 12x and cash flow periods of 7 – 20 years. The recoverable amounts for the years ended 2019 and 2018 were determined to be in excess of their carrying values.

b) Private Equity

Goodwill in our Private Equity segment increased primarily from acquisitions completed in 2019, including Healthscope (\$1.5 billion) and Clarios (\$1.9 billion). The purchase price allocations for these acquisitions have been completed on a preliminary basis.

In addition to goodwill from acquisitions completed in 2019, goodwill is primarily attributable to our construction services business and Teekay Offshore.

Goodwill is tested for impairment annually using a discounted cash flow analysis to determine the recoverable amount. During the year, we reported an impairment loss of \$417 million as the recoverable amounts at our construction services business and Teekay Offshore did not exceed the carrying amount.

The valuation assumptions used to determine the recoverable amount for our construction services business are a discount rate of 9.4% (2018 – 10.0%), terminal growth rate of 1.5% (2018 – 2.8%) and terminal year of 2024 for cash flows included in the assumptions (2018 – 2023).

c) Real Estate

Goodwill in our Real Estate segment is primarily attributable to Center Parcs and IFC Seoul. The recoverable amounts of the two assets for the years ended 2019 and 2018 were determined to be in excess of their carrying values.

The valuation assumptions used to determine the recoverable amount for Center Parcs are a discount rate of 7.9% (2018 – 7.4%) based on a market-based-weighted-average cost of capital, and a long-term growth rate of 2.0% (2018 – 2.0%).

The valuation assumptions used to determine the recoverable amount for IFC Seoul were a discount rate of 7.5% (2018 – 7.7%) based on a market-based-weighted-average cost of capital, and a long-term growth rate of 2.8% (2018 – 2.0%).

d) Renewable Power

Goodwill in our Renewable Power segment, which is primarily attributable to a hydroelectric portfolio in Colombia, arose from the inclusion of a deferred tax liability as the tax bases of the net assets acquired were lower than their fair values. The goodwill is recoverable as long as the tax circumstances that gave rise to the goodwill do not change. To date, no such changes have occurred.

Inputs used to Determine Recoverable Amounts of Goodwill

The recoverable amounts used in goodwill impairment testing are calculated using discounted cash flow models based on the following significant unobservable inputs:

Valuation Technique	Significant Unobservable Input(s)	Relationship of Unobservable Input(s) to Fair Value	Mitigating Factor(s)
Discounted cash flow models	• Future cash flows	• Increases (decreases) in future cash flows increase (decrease) the recoverable amount	• Increases (decreases) in cash flows tend to be accompanied by increases (decreases) in discount rates that may offset changes in recoverable amounts from cash flows
	• Discount rate	• Increases (decreases) in discount rate decrease (increase) the recoverable amount	• Increases (decreases) in discount rates tend to be accompanied by increases (decreases) in cash flows that may offset changes in recoverable amounts from discount rates
	• Terminal capitalization rate / multiple	• Increases (decreases) in terminal capitalization rate/multiple decrease (increase) the recoverable amount	• Increases (decreases) in terminal capitalization rates/multiple tend to be accompanied by increases (decreases) in cash flows that may offset changes in recoverable amounts from terminal capitalization rates
	• Exit date / terminal year of cash flows	• Increases (decreases) in the exit date/ terminal year of cash flows decrease (increase) the recoverable amount	• Increases (decreases) in the exit date/ terminal year of cash flows tend to be the result of changing cash flow profiles that may result in higher (lower) growth in cash flows prior to stabilizing in the terminal year

15. INCOME TAXES

The major components of income tax expense for the years ended December 31, 2019 and 2018 are set out below:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Current income tax expense	<u>\$ 970</u>	<u>\$ 861</u>
Deferred income tax expense / (recovery)		
Origination and reversal of temporary differences	281	143
Expense arising from previously unrecognized tax assets	(647)	(955)
Change of tax rates and new legislation	(109)	(297)
Total deferred income tax recovery	<u>(475)</u>	<u>(1,109)</u>
Income tax expense (recovery)	<u>\$ 495</u>	<u>\$ (248)</u>

The company's Canadian domestic statutory income tax rate has remained consistent at 26% throughout both of 2019 and 2018. The company's effective income tax rate is different from the company's domestic statutory income tax rate due to the following differences set out below:

FOR THE YEARS ENDED DEC. 31	2019	2018
Statutory income tax rate	<u>26%</u>	<u>26 %</u>
Increase (reduction) in rate resulting from:		
Change in tax rates and new legislation	(2)	(4)
International operations subject to different tax rates	(7)	(3)
Taxable income attributable to non-controlling interests	(4)	(8)
Portion of gains subject to different tax rates	(1)	(4)
Recognition of deferred tax assets	(9)	(12)
Non-recognition of the benefit of current year's tax losses	4	1
Other	1	1
Effective income tax rate	<u>8%</u>	<u>(3)%</u>

Deferred income tax assets and liabilities as at December 31, 2019 and 2018 relate to the following:

AS AT DEC. 31 (MILLIONS)	2019	2018
Non-capital losses (Canada)	<u>\$ 848</u>	<u>\$ 685</u>
Capital losses (Canada)	80	108
Losses (U.S.)	3,102	2,219
Losses (International)	705	645
Difference in basis	(16,012)	(13,161)
Total net deferred tax liabilities	<u>\$ (11,277)</u>	<u>\$ (9,504)</u>

The aggregate amount of temporary differences associated with investments in subsidiaries for which deferred tax liabilities have not been recognized as at December 31, 2019 is approximately \$5 billion (2018 – approximately \$6 billion).

The company regularly assesses the status of open tax examinations and its historical tax filing positions for the potential for adverse outcomes to determine the adequacy of the provision for income and other taxes. The company believes that it has adequately provided for any tax adjustments that are more likely than not to occur as a result of ongoing tax examinations or historical filing positions.

The dividend payment on certain preferred shares of the company results in the payment of cash taxes in Canada and the company obtaining a deduction based on the amount of these taxes.

The following table details the expiry date, if applicable, of the unrecognized deferred tax assets:

AS AT DEC. 31 (MILLIONS)	2019	2018
One year from reporting date	\$ 22	\$ 16
Two years from reporting date	9	—
Three years from reporting date	14	2
After three years from reporting date	1,159	1,125
Do not expire	1,632	1,526
Total	<u>\$ 2,836</u>	<u>\$ 2,669</u>

The components of the income taxes in other comprehensive income for the years ended December 31, 2019 and 2018 are set out below:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Revaluation of property, plant and equipment	\$ 623	\$ 1,302
Financial contracts and power sale agreements	6	26
Fair value through OCI securities	88	10
Foreign currency translation	(8)	69
Revaluation of pension obligation	(6)	7
Total deferred tax in other comprehensive income	<u>\$ 703</u>	<u>\$ 1,414</u>

16. CORPORATE BORROWINGS

AS AT DEC. 31 (MILLIONS)	Maturity	Annual Rate	Currency	2019	2018
Term debt					
Public – Canadian	Apr. 9, 2019	3.95%	C\$	\$ —	\$ 440
Public – Canadian	Mar. 1, 2021	5.30%	C\$	269	257
Public – Canadian	Mar. 31, 2023	4.54%	C\$	463	441
Public – Canadian	Mar. 8, 2024	5.04%	C\$	385	367
Public – U.S.	Apr. 1, 2024	4.00%	US\$	749	749
Public – U.S.	Jan. 15, 2025	4.00%	US\$	500	500
Public – Canadian	Jan. 28, 2026	4.82%	C\$	664	633
Public – U.S.	Jun. 2, 2026	4.25%	US\$	497	496
Public – Canadian	Mar. 16, 2027	3.80%	C\$	385	366
Public – U.S.	Jan. 25, 2028	3.90%	US\$	649	648
Public – U.S.	Mar. 29, 2029	4.85%	US\$	998	—
Public – U.S.	Mar. 1, 2033	7.38%	US\$	250	250
Public – Canadian	Jun. 14, 2035	5.95%	C\$	325	309
Private – Japanese	Dec. 1, 2038	1.42%	JPY	92	91
Public – U.S.	Sep. 20, 2047	4.70%	US\$	902	903
				<u>7,128</u>	<u>6,450</u>
Deferred financing costs ¹				(45)	(41)
Total				<u>\$ 7,083</u>	<u>\$ 6,409</u>

1. Deferred financing costs are amortized to interest expense over the term of the borrowing using the effective interest method.

Corporate borrowings have a weighted-average interest rate of 4.6% (2018 – 4.5%) and include \$2.5 billion (2018 – \$2.8 billion) repayable in Canadian dollars of C\$3.2 billion (2018 – C\$3.8 billion) and \$92 million (2018 – \$91 million) repayable in Japanese Yen of ¥10 billion (2018 – ¥10 billion).

17. ACCOUNTS PAYABLE AND OTHER

AS AT DEC. 31 (MILLIONS)	2019	2018
Accounts payable.....	\$ 9,583	\$ 6,873
Provisions	4,104	2,830
Lease liabilities	5,494	—
Other liabilities	23,896	14,286
Total	<u>\$ 43,077</u>	<u>\$ 23,989</u>

The current and non-current balances of accounts payable, provisions and other liabilities are as follows:

AS AT DEC. 31 (MILLIONS)	2019	2018
Current	\$ 23,212	\$ 14,337
Non-current.....	19,865	9,652
Total	<u>\$ 43,077</u>	<u>\$ 23,989</u>

Post-Employment Benefits

The company offers pension and other post-employment benefit plans to employees of certain of its subsidiaries. The company's obligations under its defined benefit pension plans are determined periodically through the preparation of actuarial valuations. The benefit plans' in-year valuation change was a decrease of \$149 million (2018 – a decrease of \$19 million). The discount rate used was 3% (2018 – 2%) with an increase in the rate of compensation of 2% (2018 – 2%), and an investment rate of 6% (2018 – 3%).

AS AT DEC. 31 (MILLIONS)	2019	2018
Plan assets	\$ 3,029	\$ 1,981
Less accrued benefit obligation:		
Defined benefit pension plan	(3,995)	(2,548)
Other post-employment benefits	(173)	(148)
Net liability	<u>(1,139)</u>	<u>(715)</u>
Less: net actuarial gains (losses) and other	13	(10)
Accrued benefit liability	<u>\$ (1,126)</u>	<u>\$ (725)</u>

18. NON-RECOURSE BORROWINGS OF MANAGED ENTITIES

AS AT DEC. 31	Note	2019	2018
Subsidiary borrowings.....	(a)	\$ 8,423	\$ 8,600
Property-specific borrowings	(b)	127,869	103,209
Total.....		<u>\$ 136,292</u>	<u>\$ 111,809</u>

a) Subsidiary Borrowings

Principal repayments on subsidiary borrowings due over the next five calendar years and thereafter are as follows:

(MILLIONS)	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Total
2020	\$ —	\$ —	\$ —	\$ —	\$ 17	\$ 17
2021	443	—	—	—	36	479
2022	—	308	347	—	541	1,196
2023	308	—	—	—	227	535
2024	1,294	299	1,359	—	57	3,009
Thereafter.....	—	1,501	768	—	949	3,218
Total Principal repayments	2,045	2,108	2,474	—	1,827	8,454
Deferred financing costs and other ..	(21)	(10)	(4)	—	4	(31)
Total – Dec. 31, 2019	\$ 2,024	\$ 2,098	\$ 2,470	\$ —	\$ 1,831	\$ 8,423
Total – Dec. 31, 2018.....	\$ 2,504	\$ 2,328	\$ 1,993	\$ 52	\$ 1,723	\$ 8,600

The weighted-average interest rate on subsidiary borrowings as at December 31, 2019 was 4.3% (2018 – 4.5%).

The current and non-current balances of subsidiary borrowings are as follows:

AS AT DEC. 31 (MILLIONS)	2019	2018
Current.....	\$ 17	\$ 395
Non-current.....	8,406	8,205
Total.....	<u>\$ 8,423</u>	<u>\$ 8,600</u>

Subsidiary borrowings by currency include the following:

AS AT DEC. 31 (MILLIONS)	2019	Local Currency	2018	Local Currency
U.S. dollars	\$ 5,162	US\$ 5,162	\$ 6,846	US\$ 6,846
Canadian dollars	3,078	C\$ 3,998	1,613	C\$ 2,200
Brazilian reais.....	183	R\$ 737	—	R\$ —
Australian dollars	—	A\$ —	141	A\$ 200
Total.....	<u>\$ 8,423</u>		<u>\$ 8,600</u>	

b) Property-Specific Borrowings

Principal repayments on property-specific borrowings due over the next five calendar years and thereafter are as follows:

(MILLIONS)	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Total
2020	\$ 9,871	\$ 1,556	\$ 2,740	\$ 1,438	\$ 91	\$ 15,696
2021	11,796	1,073	1,044	868	38	14,819
2022	7,784	1,168	1,707	1,487	19	12,165
2023	6,876	1,841	3,012	1,524	13	13,266
2024	11,181	797	3,043	2,947	136	18,104
Thereafter.....	20,945	9,377	9,365	15,363	—	55,050
Total Principal repayments	68,453	15,812	20,911	23,627	297	129,100
Deferred financing costs and other ..	(544)	(25)	(135)	(522)	(5)	(1,231)
Total – Dec. 31, 2019	\$ 67,909	\$ 15,787	\$ 20,776	\$ 23,105	\$ 292	\$ 127,869
Total – Dec. 31, 2018.....	\$ 63,494	\$ 14,233	\$ 14,334	\$ 10,820	\$ 328	\$ 103,209

The weighted-average interest rate on property-specific borrowings as at December 31, 2019 was 4.7% (2018 – 5.0%).

The current and non-current balances of property-specific borrowings are as follows:

AS AT DEC. 31 (MILLIONS)	2019	2018
Current	\$ 15,696	\$ 10,764
Non-current.....	112,173	92,445
Total.....	\$ 127,869	\$ 103,209

Property-specific borrowings by currency include the following:

AS AT DEC. 31 (MILLIONS)	2019	Local Currency	2018	Local Currency
U.S. dollars	\$ 84,203	US\$ 84,203	\$ 72,747	US\$ 72,747
British pounds	9,812	£ 7,401	7,200	£ 5,643
Canadian dollars	7,955	C\$ 10,333	6,285	C\$ 8,573
European Union euros	6,844	€ 6,103	3,264	€ 2,846
Australian dollars	4,815	A\$ 6,861	2,968	A\$ 4,210
Indian rupees	4,143	Rs 295,106	2,026	Rs 140,694
Brazilian reais.....	3,969	R\$ 15,998	3,825	R\$ 14,820
Colombian pesos	2,029	COP\$ 6,671,818	1,855	COP\$ 6,025,270
Korean won	1,959	₩ 2,264,478	1,613	₩ 1,797,415
Chilean unidades de fomento	1,099	UF 29	837	UF 21
Other currencies	1,041	n/a	589	n/a
Total.....	\$ 127,869		\$ 103,209	

19. SUBSIDIARY EQUITY OBLIGATIONS

Subsidiary equity obligations consist of the following:

AS AT DEC. 31 (MILLIONS)	Note	2019	2018
Subsidiary preferred equity units	(a)	\$ 1,650	\$ 1,622
Limited-life funds and redeemable fund units	(b)	1,896	1,724
Subsidiary preferred shares and capital	(c)	586	530
Total		<u>\$ 4,132</u>	<u>\$ 3,876</u>

a) Subsidiary Preferred Equity Units

In 2014, BPY issued \$1.8 billion of exchangeable preferred equity units in three \$600 million tranches redeemable in 2021, 2024 and 2026, respectively. The preferred equity units are exchangeable into equity units of BPY at \$25.70 per unit, at the option of the holder, at any time up to and including the maturity date. BPY may redeem the preferred equity units after specified periods if the BPY equity unit price exceeds predetermined amounts. At maturity, the preferred equity units that remain outstanding will be converted into BPY equity units at the lower of \$25.70 or the then market price of a BPY equity unit. The preferred equity units represent a compound financial instrument comprised of the financial liability representing the company's obligations to redeem the preferred equity units at maturity for a variable number of BPY units and an equity instrument representing the holder's right to convert the preferred equity units to a fixed number of BPY units. The company is required under certain circumstances to purchase the preferred equity units at their redemption value in equal amounts in 2021 and 2024 and may be required to purchase the 2026 tranche, as further described in Note 29(a).

AS AT DEC. 31 (MILLIONS, EXCEPT PER SHARE INFORMATION)	Shares Outstanding	Cumulative Dividend Rate	Local Currency	2019	2018
Series 1	24,000,000	6.25%	US\$	\$ 574	\$ 562
Series 2	24,000,000	6.50%	US\$	546	537
Series 3	24,000,000	6.75%	US\$	530	523
Total				<u>\$ 1,650</u>	<u>\$ 1,622</u>

b) Limited-Life Funds and Redeemable Fund Units

Limited-life funds and redeemable fund units represent interests held in our consolidated funds by third-party investors that have been classified as a liability rather than as non-controlling interest, as holders of these interests can cause our funds to redeem their interest in the fund for cash equivalents at a specified time. As at December 31, 2019, we have \$1.9 billion of subsidiary equity obligations arising from limited-life funds and redeemable fund units (2018 – \$1.7 billion arising from limited-life funds).

In our real estate business, limited-life fund obligations include \$921 million (2018 – \$813 million) of equity interests held by third-party investors in two consolidated funds that have been classified as a liability, instead of non-controlling interest, as holders of these interests can cause the funds to redeem their interests in the fund for cash equivalents at the fair value of the interest at a set date.

As at December 31, 2019, we have \$934 million (2018 – \$826 million) of subsidiary equity obligations arising from limited-life fund units in our infrastructure business. These obligations are primarily composed of the portion of the equity interest held by third-party investors in our timberland and agriculture funds that are attributed to the value of the land held in the fund. The value of this equity interest has been classified as a liability, instead of non-controlling interest, as we are obligated to purchase the land from the third-party investors on maturity of the fund.

We also have \$41 million of redeemable fund units (2018 – \$85 million) in certain funds managed by our public securities business.

c) Subsidiary Preferred Shares and Capital

Preferred shares are classified as liabilities if the holders of the preferred shares have the right, after a fixed date, to convert the shares into common equity of the issuer based on the market price of the common equity of the issuer at that time unless they are previously redeemed by the issuer. The dividends paid on these securities are recorded in interest expense. As at December 31, 2019 and 2018, the balance related to obligations of BPY and its subsidiaries.

AS AT DEC. 31
(MILLIONS, EXCEPT PER SHARE INFORMATION)

	Shares Outstanding	Cumulative Dividend Rate	Local Currency	2019	2018
Brookfield Property Split Corp ("BOP Split") senior preferred shares					
Series 1	924,390	5.25%	US\$	\$ 23	\$ 23
Series 2	699,165	5.75%	C\$	13	13
Series 3	909,814	5.00%	C\$	18	17
Series 4	940,486	5.20%	C\$	18	17
BSREP II RH B LLC ("Manufactured Housing") preferred capital.....	—	9.00%	US\$	249	249
Rouse Series A preferred shares	5,600,000	5.00%	US\$	142	142
BSREP II Vintage Estate Partners LLC ("Vintage Estates") preferred shares	10,000	5.00%	US\$	40	40
BIP Investment Corporation Series 1 Senior preferred shares	4,000,000	5.85%	C\$	73	—
Forest City Enterprises L.P. ("Forest City") & Other Preferred Capital	387,079	2.00%	US\$	10	29
Total				<u>\$ 586</u>	<u>\$ 530</u>

Each series of the BOP Split senior preferred shares are redeemable at the option of either the issuer or the holder as the redemption and conversion option dates have passed.

Subsidiary preferred capital includes \$249 million at December 31, 2019 (2018 – \$249 million) of preferred equity interests held by a third-party investor in Manufactured Housing which has been classified as a liability, rather than as non-controlling interest, due to the fact the holders are only entitled to distributions equal to their capital balance plus 9% annual return payable in monthly distributions until maturity in December 2025. The preferred capital was issued to partially fund the acquisition of the Manufactured Housing portfolio during the first quarter of 2017.

Subsidiary preferred shares include \$142 million at December 31, 2019 (2018 – \$142 million) of preferred equity interests held by a third-party investor in Rouse Properties, L.P., which have been classified as a liability, rather than as non-controlling interests, due to the fact that the interests have no voting rights and are mandatorily redeemable on or after November 12, 2025 for a set price per unit plus any accrued but unpaid distributions; distributions are capped and accrue regardless of available cash generated.

20. SUBSIDIARY PUBLIC ISSUERS AND FINANCE SUBSIDIARY

Brookfield Finance Inc. ("BFI") is an indirect 100% owned subsidiary of the Corporation that may offer and sell debt securities. Any debt securities issued by BFI are fully and unconditionally guaranteed by the Corporation. BFI issued \$500 million of 4.25% notes due in 2026 on June 2, 2016, \$550 million and \$350 million of 4.70% notes due in 2047 on September 14, 2017 and January 17, 2018, respectively, \$650 million of 3.90% notes due in 2028 on January 17, 2018 and \$1 billion of 4.85% notes due in 2029 on January 29, 2019.

Brookfield Finance LLC ("BFL") is a Delaware limited liability company formed on February 6, 2017 and an indirect 100% owned subsidiary of the Corporation. BFL is a "finance subsidiary," as defined in Rule 3-10 of Regulation S-X. Any debt securities issued by BFL are fully and unconditionally guaranteed by the Corporation. On March 10, 2017, BFL issued \$750 million of 4.00% notes due in 2024. On December 31, 2018, as part of an internal reorganization, the 2024 notes were transferred to BFI. BFL has no independent activities, assets or operations other than in connection with any debt securities it may issue.

Subsequent to year-end, the Corporation announced a public offering of \$600 million of notes due 2050. The notes were issued by BFL and have a coupon of 3.45%.

Brookfield Investments Corporation ("BIC") is an investment company that holds investments in the real estate and forest products sectors, as well as a portfolio of preferred shares issued by the Corporation's subsidiaries. The Corporation provided a full and unconditional guarantee of the Class 1 Senior Preferred Shares, Series A issued by BIC. As at December 31, 2019, C\$42 million of these senior preferred shares were held by third-party shareholders and are retractable at the option of the holder.

The following tables contain summarized financial information of the Corporation, BFI, BFL, BIC and non-guarantor subsidiaries:

AS AT AND FOR THE YEAR ENDED DEC. 31, 2019 (MILLIONS)	The Corporation ¹	BFI	BFL	BIC	Subsidiaries of the Corporation Other than BFI, BFL and BIC ²	Consolidating Adjustments ³	The Company Consolidated
Revenues.....	\$ 104	\$ 148	\$ —	\$ 105	\$ 73,310	\$ (5,841)	\$ 67,826
Net income attributable to shareholders	2,807	40	—	85	3,493	(3,618)	2,807
Total assets.....	70,976	5,389	—	3,520	331,698	(87,614)	323,969
Total liabilities	35,963	3,994	—	2,239	195,586	(30,659)	207,123

AS AT AND FOR THE YEAR ENDED DEC. 31, 2018 (MILLIONS)	The Corporation ¹	BFI	BFL	BIC	Subsidiaries of the Corporation Other than BFI, BFL and BIC ²	Consolidating Adjustments ³	The Company Consolidated
Revenues.....	\$ 810	\$ 43	\$ 53	\$ 163	\$ 62,984	\$ (7,282)	\$ 56,771
Net income attributable to shareholders	3,584	(46)	(1)	145	4,506	(4,604)	3,584
Total assets.....	59,105	4,330	13	3,296	271,534	(81,997)	256,281
Total liabilities	29,290	2,909	6	2,198	154,458	(29,730)	159,131

1. This column accounts for investments in all subsidiaries of the Corporation under the equity method.
2. This column accounts for investments in all subsidiaries of the Corporation other than BFI, BFL and BIC on a combined basis.
3. This column includes the necessary amounts to present the company on a consolidated basis.

21. EQUITY

Equity consists of the following:

AS AT DEC. 31 (MILLIONS)	Note	2019	2018
Preferred equity	(a)	\$ 4,145	\$ 4,168
Non-controlling interests	(b)	81,833	67,335
Common equity	(c)	30,868	25,647
		<u>\$ 116,846</u>	<u>\$ 97,150</u>

a) Preferred Equity

Preferred equity includes perpetual preferred shares and rate-reset preferred shares and consists of the following:

AS AT DEC. 31 (MILLIONS)	Average Rate		2019	2018
	2019	2018		
Perpetual preferred shares				
Floating rate.....	2.91%	2.90%	\$ 531	\$ 531
Fixed rate.....	4.82%	4.82%	739	744
	4.02%	4.02%	1,270	1,275
Fixed rate-reset preferred shares	4.28%	4.26%	2,875	2,893
	4.20%	4.19%	<u>\$ 4,145</u>	<u>\$ 4,168</u>

Further details on each series of preferred shares are as follows:

AS AT DEC. 31 (MILLIONS, EXCEPT PER SHARE INFORMATION)	Rate	Issued and Outstanding		2019	2018
		2019	2018		
Class A preferred shares					
Perpetual preferred shares					
Series 2	70% P	10,457,685	10,457,685	\$ 169	\$ 169
Series 4	70% P/8.5%	2,795,910	2,795,910	45	45
Series 8	Variable up to P	2,476,185	2,476,185	42	42
Series 13	70% P	9,290,096	9,290,096	195	195
Series 15	B.A. + 40 b.p. ¹	2,000,000	2,000,000	42	42
Series 17	4.75%	7,840,204	7,901,476	171	172
Series 18	4.75%	7,866,749	7,921,178	178	179
Series 25	3-Month T-Bill + 230 b.p.	1,529,133	1,529,133	38	38
Series 36	4.85%	7,842,909	7,900,764	197	199
Series 37	4.90%	7,830,091	7,888,143	193	194
				1,270	1,275
Rate-reset preferred shares ²					
Series 9	2.75%	1,515,981	1,515,981	21	21
Series 24	3.01%	9,278,894	9,338,572	227	228
Series 26	3.47%	9,770,928	9,840,588	240	241
Series 28	2.73%	9,233,927	9,289,397	232	233
Series 30	4.69%	9,787,090	9,852,258	241	243
Series 32 ³	5.06%	11,750,299	11,849,808	297	300
Series 34 ⁴	4.44%	9,876,735	9,926,620	253	254
Series 38	4.40%	7,906,132	7,955,948	179	180
Series 40 ⁵	4.03%	11,841,025	11,914,515	271	273
Series 42	4.50%	11,887,500	11,943,400	266	268
Series 44	5.00%	9,831,929	9,882,879	187	188
Series 46	4.80%	11,740,797	11,810,653	217	219
Series 48	4.75%	11,885,972	11,961,701	244	245
				2,875	2,893
Total				\$ 4,145	\$ 4,168

1. Rate determined quarterly.

2. Dividend rates are fixed for 5 to 6 years from the quarter end dates after issuance, June 30, 2011, March 31, 2012, June 30, 2012, December 31, 2012, September 30, 2013, March 31, 2014, June 30, 2014, December 31, 2014, December 31, 2015, December 31, 2016 and December 31, 2017, respectively and reset after 5 to 6 years to the 5-year Government of Canada bond rate plus between 180 and 417 basis points.

3. Dividend rate reset commenced September 30, 2018.

4. Dividend rate reset commenced March 31, 2019.

5. Dividend rate reset commenced September 30, 2019.

P – Prime Rate, B.A. – Bankers' Acceptance Rate, b.p. – Basis Points.

The company is authorized to issue an unlimited number of Class A preferred shares and an unlimited number of Class AA preferred shares, issuable in series. No Class AA preferred shares have been issued.

The Class A preferred shares are entitled to preference over the Class A and Class B Limited Voting Shares ("Class A and B shares") on the declaration of dividends and other distributions to shareholders. All series of the outstanding preferred shares have a par value of C\$25.00 per share.

b) Non-controlling Interests

Non-controlling interests represent the common and preferred equity in consolidated entities that are owned by other shareholders.

AS AT DEC. 31 (MILLIONS)	2019	2018
Common equity	\$ 76,557	\$ 62,109
Preferred equity	5,276	5,226
Total	<u>\$ 81,833</u>	<u>\$ 67,335</u>

Further information on non-controlling interests is provided in Note 4 – Subsidiaries.

c) Common Equity

The company's common equity is comprised of the following:

AS AT DEC. 31, 2019 AND 2018 (MILLIONS)	2019	2018
Common shares	\$ 7,305	\$ 4,457
Contributed surplus	286	271
Retained earnings	16,026	14,244
Ownership changes.....	1,010	645
Accumulated other comprehensive income.....	6,241	6,030
Common equity	<u>\$ 30,868</u>	<u>\$ 25,647</u>

The company is authorized to issue an unlimited number of Class A shares and 85,120 Class B shares, together referred to as common shares. The company's common shares have no stated par value. The holders of Class A shares and Class B shares rank on par with each other with respect to the payment of dividends and the return of capital on the liquidation, dissolution or winding up of the company or any other distribution of the assets of the company among its shareholders for the purpose of winding up its affairs. Holders of the Class A shares are entitled to elect half of the Board of Directors of the company and holders of the Class B shares are entitled to elect the other half of the Board of Directors. With respect to the Class A and Class B shares, there are no dilutive factors, material or otherwise, that would result in different diluted earnings per share between the classes. This relationship holds true irrespective of the number of dilutive instruments issued in either one of the respective classes of common stock, as both classes of shares participate equally, on a pro rata basis, in the dividends, earnings and net assets of the company, whether taken before or after dilutive instruments, regardless of which class of shares is diluted.

The holders of the company's common shares received cash dividends during 2019 of \$0.64 per share (2018 – \$0.60 per share).

The number of issued and outstanding common shares and unexercised options are as follows:

AS AT DEC. 31, 2019 AND 2018	2019	2018
Class A shares ¹	1,006,110,641	955,057,721
Class B shares	85,120	85,120
Shares outstanding ¹	1,006,195,761	955,142,841
Unexercised options and other share-based plans ²	46,678,774	42,086,712
Total diluted shares	<u>1,052,874,535</u>	<u>997,229,553</u>

1. Net of 42,278,231 Class A shares held by the company in respect of long-term compensation agreements as at December 31, 2019 (2018 – 37,538,531).

2. Includes management share option plan and escrowed stock plan.

The authorized common share capital consists of an unlimited number of Class A shares and 85,120 Class B shares. Shares issued and outstanding changed as follows:

FOR THE YEARS ENDED DEC. 31	2019	2018
Outstanding, beginning of year ¹	955,142,841	958,773,120
Issued (repurchased)		
Issuances	52,757,437	—
Repurchases	(7,188,534)	(9,579,740)
Long-term share ownership plans ²	5,346,417	5,752,331
Dividend reinvestment plan and others	137,600	197,130
Outstanding, end of year ³	1,006,195,761	955,142,841

1. Net of 37,538,531 Class A shares held by the company in respect of long-term compensation agreements as at December 31, 2018 (2017 – 30,569,215).

2. Includes management share option plan and restricted stock plan.

3. Net of 42,278,231 Class A shares held by the company in respect of long-term compensation agreements as at December 31, 2019 (2018 – 37,538,531).

In September 2019, the company issued 52.8 million Class A shares in connection with the acquisition of an approximate 61% interest in Oaktree.

Earnings Per Share

The components of basic and diluted earnings per share are summarized in the following table:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Net income attributable to shareholders	\$ 2,807	\$ 3,584
Preferred share dividends	(152)	(151)
Dilutive effect of conversion of subsidiary preferred shares	(74)	(105)
Net income available to shareholders	\$ 2,581	\$ 3,328
Weighted average – common shares	968.6	957.6
Dilutive effect of the conversion of options and escrowed shares using treasury stock method	23.7	19.8
Common shares and common share equivalents	992.3	977.4

Share-Based Compensation

The expense recognized for share-based compensation is summarized in the following table:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Expense arising from equity-settled share-based payment transactions	\$ 81	\$ 73
Expense/(Recovery) arising from cash-settled share-based payment transactions	506	(64)
Total expense arising from share-based payment transactions	587	9
Effect of hedging program	(500)	75
Total expense included in consolidated income	\$ 87	\$ 84

The share-based payment plans are described below. There were no cancellations of or modifications to any of the plans during 2019 and 2018.

Equity-settled Share-based Awards

Management Share Option Plan

Options issued under the company's Management Share Option Plan ("MSOP") vest over a period of up to five years, expire 10 years after the grant date and are settled through issuance of Class A shares. The exercise price is equal to the market price at the grant date. For the year ended December 31, 2019, the total expense incurred with respect to MSOP totaled \$31 million (2018 – \$28 million).

The changes in the number of options during 2019 and 2018 were as follows:

	TSX		NYSE	
	Number of Options (000's) ¹	Weighted-Average Exercise Price	Number of Options (000's) ²	Weighted-Average Exercise Price
Outstanding at January 1, 2019.....	790	C\$ 11.77	36,742	US\$ 29.52
Granted.....	—	—	5,077	45.63
Exercised.....	(790)	11.77	(7,831)	20.26
Canceled.....	—	—	(186)	40.02
Outstanding at December 31, 2019.....	—	C\$ —	33,802	US\$ 34.03

- Options to acquire TSX listed Class A shares.
- Options to acquire NYSE listed Class A shares.

	TSX		NYSE	
	Number of Options (000's) ¹	Weighted-Average Exercise Price	Number of Options (000's) ²	Weighted-Average Exercise Price
Outstanding at January 1, 2018	2,797	C\$ 12.35	34,893	US\$ 27.71
Granted	—	—	4,538	40.42
Exercised	(2,007)	12.59	(2,492)	23.58
Canceled	—	—	(197)	34.81
Outstanding at December 31, 2018	790	C\$ 11.77	36,742	US\$ 29.52

- Options to acquire TSX listed Class A shares.
- Options to acquire NYSE listed Class A shares.

The weighted-average fair value of options granted for the year ended December 31, 2019 was \$5.89 (2018 – \$5.38), and was determined using the Black-Scholes valuation model, with inputs to the model as follows:

FOR THE YEARS ENDED DEC. 31	Unit	2019	2018
Weighted-average share price.....	US\$	45.63	40.42
Average term to exercise	Years	7.5	7.5
Share price volatility ¹	%	16.9	16.3
Liquidity discount	%	25.0	25.0
Weighted-average annual dividend yield.....	%	2.0	1.9
Risk-free rate	%	2.5	2.8

- Share price volatility was determined based on historical share prices over a similar period to the average term to exercise.

At December 31, 2019, the following options to purchase Class A shares were outstanding:

Exercise Price	Weighted-Average Remaining Life	Options Outstanding (000's)		
		Vested	Unvested	Total
US\$15.45 – US\$23.02	1.6 years	3,746	—	3,746
US\$23.37 – US\$30.59	4.7 years	8,348	1,542	9,890
US\$33.75 – US\$40.39	6.8 years	7,581	7,514	15,095
US\$44.24 – US\$57.96	9.2 years	409	4,662	5,071
		20,084	13,718	33,802

At December 31, 2018, the following options to purchase Class A shares were outstanding:

Exercise Price	Weighted-Average Remaining Life	Options Outstanding (000's)		
		Vested	Unvested	Total
C\$11.77	0.2 years	790	—	790
US\$15.45	1.2 years	4,255	—	4,255
US\$16.83 – US\$23.37	2.8 years	5,160	—	5,160
US\$25.21 – US\$30.59	5.5 years	8,410	3,293	11,703
US\$33.75 – US\$36.32	6.1 years	2,873	2,115	4,988
US\$36.88 – US\$37.75	8.6 years	1,197	9,439	10,636
		22,685	14,847	37,532

Escrowed Stock Plan

The Escrowed Stock Plan (the “ES Plan”) provides executives with indirect ownership of Class A shares. Under the ES Plan, executives are granted common shares (the “ES Shares”) in one or more private companies that own Class A shares. The Class A shares are purchased on the open market with the purchase cost funded by the company. The ES shares generally vest over five years and must be held to the fifth anniversary of the grant date. At a date no more than ten years from the grant date, all outstanding ES shares will be exchanged for Class A shares issued by the company based on the market value of Class A shares at the time of the exchange. The number of Class A shares issued on exchange will be less than the Class A shares purchased under the ES Plan resulting in a net reduction in the number of Class A shares issued by the company.

During 2019, 10.7 million Class A shares were purchased in respect of ES shares granted to executives under the ES Plan (2018 – 5.8 million Class A shares) during the year. For the year ended December 31, 2019, the total expense incurred with respect to the ES Plan totaled \$25 million (2018 – \$25 million).

The weighted-average fair value of escrowed shares granted for the year ended December 31, 2019 was \$6.81 (2018 – \$5.38), and was determined using the Black-Scholes model of valuation with inputs to the model as follows:

FOR THE YEARS ENDED DEC. 31	Unit	2019	2018
Weighted-average share price	US\$	51.11	40.39
Average term to exercise	Years	8.5	7.5
Share price volatility ¹	%	17.3	16.3
Liquidity discount	%	25	25
Weighted-average annual dividend yield	%	1.8	1.9
Risk-free rate	%	2.1	2.8

1. Share price volatility was determined based on historical share prices over a similar period to the average term to exercise.

The change in the number of ES shares during 2019 and 2018 was as follows:

	Number of Units (000's)	Weighted- Average Exercise Price
Outstanding at January 1, 2019	27,103	\$ 33.27
Granted	10,650	51.11
Exercised	(1,075)	23.66
Canceled	(151)	39.48
Outstanding at December 31, 2019	36,527	\$ 38.73

	Number of Units (000's)	Weighted- Average Exercise Price
Outstanding at January 1, 2018	27,772	\$ 29.01
Granted	5,815	40.39
Exercised	(6,484)	21.40
Outstanding at December 31, 2018	27,103	\$ 33.27

Restricted Stock Plan

The Restricted Stock Plan awards executives with Class A shares purchased on the open market (“Restricted Shares”). Under the Restricted Stock Plan, Restricted Shares awarded vest over a period of up to five years, except for Restricted Shares awarded in lieu of a cash bonus, which may vest immediately. Vested and unvested Restricted Shares are subject to a hold period of up to five years. Holders of Restricted Shares are entitled to vote Restricted Shares and to receive associated dividends. Employee compensation expense for the Restricted Stock Plan is charged against income over the vesting period.

During 2019, Brookfield granted 800,493 Class A shares (2018 – 581,051) pursuant to the terms and conditions of the Restricted Stock Plan, resulting in the recognition of \$25 million (2018 – \$20 million) of compensation expense.

Cash-settled Share-based Awards

Deferred Share Unit Plan and Restricted Share Unit Plan

The Deferred Share Unit Plan and Restricted Share Unit Plan provide for the issuance of DSUs and RSUs, respectively. Under these plans, qualifying employees and directors receive varying percentages of their annual incentive bonus or directors’ fees in the form of DSUs and RSUs. The DSUs and RSUs vest over periods of up to five years, and DSUs accumulate additional DSUs at the same rate as dividends on common shares based on the market value of the common shares at the time of the dividend. Participants are not allowed to convert DSUs and RSUs into cash until retirement or cessation of employment.

The value of the DSUs, when converted to cash, will be equivalent to the market value of the common shares at the time the conversion takes place. The value of the RSUs, when converted into cash, will be equivalent to the difference between the market price of equivalent number of common shares at the time the conversion takes place and the market price on the date the RSUs are granted. The company uses equity derivative contracts to offset its exposure to the change in share prices in respect of vested and unvested DSUs and RSUs. The fair value of the vested DSUs and RSUs as at December 31, 2019 was \$1.4 billion (2018 – \$894 million).

Employee compensation expense for these plans is charged against income over the vesting period of the DSUs and RSUs. The amount payable by the company in respect of vested DSUs and RSUs changes as a result of dividends and share price movements. All of the amounts attributable to changes in the amounts payable by the company are recorded as employee compensation expense in the period of the change. For the year ended December 31, 2019, employee compensation expense totaled \$7 million (2018 – \$11 million), net of the impact of hedging arrangements.

The change in the number of DSUs and RSUs during 2019 and 2018 was as follows:

	DSUs	RSUs	
	Number of Units (000's)	Number of Units (000's)	Weighted-Average Exercise Price
Outstanding at January 1, 2019.....	14,637	10,540	C\$ 9.21
Granted and reinvested.....	532	—	—
Exercised and canceled	(1,034)	—	—
Outstanding at December 31, 2019.....	14,135	10,540	C\$ 9.21

	DSUs	RSUs	
	Number of Units (000's)	Number of Units (000's)	Weighted-Average Exercise Price
Outstanding at January 1, 2018.....	14,944	10,920	C\$ 9.09
Granted and reinvested.....	466	—	—
Exercised and canceled	(773)	(380)	5.89
Outstanding at December 31, 2018.....	14,637	10,540	C\$ 9.21

The fair value of each DSU is equal to the traded price of the company's common shares.

	Unit	Dec. 31, 2019	Dec. 31, 2018
Share price on date of measurement.....	C\$	75.03	52.32
Share price on date of measurement.....	US\$	57.80	38.35

The fair value of RSUs was determined primarily using the following inputs:

	Unit	Dec. 31, 2019	Dec. 31, 2018
Share price on date of measurement.....	C\$	75.03	52.32
Weighted-average fair value of a unit.....	C\$	65.82	43.11

22. REVENUES

We perform a disaggregated analysis of revenues considering the nature, amount, timing and uncertainty of revenues. This includes disclosure of our revenues by segment and type, as well as a breakdown of whether revenues from goods or services are recognized at a point in time or delivered over a period of time.

a) Revenue by Type

FOR THE YEAR ENDED DEC. 31, 2019 (MILLIONS)	Asset Management	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Corporate Activities	Total Revenues
Revenue from contracts with customers	\$ 271	\$ 3,833	\$ 3,810	\$ 6,333	\$ 42,147	\$ 2,396	\$ 9	\$ 58,799
Other revenue	—	6,609	149	758	952	60	499	9,027
	<u>\$ 271</u>	<u>\$ 10,442</u>	<u>\$ 3,959</u>	<u>\$ 7,091</u>	<u>\$ 43,099</u>	<u>\$ 2,456</u>	<u>\$ 508</u>	<u>\$ 67,826</u>

FOR THE YEAR ENDED DEC. 31, 2018 (MILLIONS)	Asset Management	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Corporate Activities	Total Revenues
Revenue from contracts with customers	\$ 187	\$ 3,107	\$ 3,651	\$ 4,859	\$ 36,693	\$ 2,651	\$ 13	\$ 51,161
Other revenue	—	4,968	100	154	135	32	221	5,610
	<u>\$ 187</u>	<u>\$ 8,075</u>	<u>\$ 3,751</u>	<u>\$ 5,013</u>	<u>\$ 36,828</u>	<u>\$ 2,683</u>	<u>\$ 234</u>	<u>\$ 56,771</u>

b) Timing of Recognition of Revenue from Contracts with Customers

FOR THE YEAR ENDED DEC. 31, 2019 (MILLIONS)	Asset Management	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Corporate Activities	Total Revenues
Goods and services provided at a point in time	\$ —	\$ 1,193	\$ 95	\$ 225	\$ 34,141	\$ 2,384	\$ 9	\$ 38,047
Services transferred over a period of time	271	2,640	3,715	6,108	8,006	12	—	20,752
	<u>\$ 271</u>	<u>\$ 3,833</u>	<u>\$ 3,810</u>	<u>\$ 6,333</u>	<u>\$ 42,147</u>	<u>\$ 2,396</u>	<u>\$ 9</u>	<u>\$ 58,799</u>

FOR THE YEAR ENDED DEC. 31, 2018 (MILLIONS)	Asset Management	Real Estate	Renewable Power	Infrastructure	Private Equity	Residential Development	Corporate Activities	Total Revenues
Goods and services provided at a point in time	\$ —	\$ 1,118	\$ 79	\$ 201	\$ 28,860	\$ 2,651	\$ 13	\$ 32,922
Services transferred over a period of time	187	1,989	3,572	4,658	7,833	—	—	18,239
	<u>\$ 187</u>	<u>\$ 3,107</u>	<u>\$ 3,651</u>	<u>\$ 4,859</u>	<u>\$ 36,693</u>	<u>\$ 2,651</u>	<u>\$ 13</u>	<u>\$ 51,161</u>

Remaining Performance Obligations

Private Equity

In our construction services business, backlog is defined as revenue yet to be delivered (i.e. remaining performance obligations) on construction projects that have been secured via an executed contract, work order or letter of intent. As at December 31, 2019 our backlog of construction projects was approximately \$7.0 billion (2018 – \$8.0 billion), with an overall weighted-average remaining project life of approximately two years (2018 – two years).

In our Brazilian water and wastewater services business, our long-term, inflation-adjusted concession service contracts with various municipalities have an average remaining contract duration of 24 years as at December 31, 2019 (2018 – 25 years).

Others

In our asset management, infrastructure and renewable power businesses, revenue is generally recognized as invoiced for contracts recognized over a period of time as the amounts invoiced are commensurate with the value provided to the customers.

c) Lease Income

Our leases in which the Company is a lessor are primarily operating in nature. Total lease income from our assets leased out on operating leases totaled \$6.8 billion including \$67 million of income related to variable lease income that is not dependent on an index or rate.

The following table presents the undiscounted contractual earnings receivable of the company's leases by expected period of receipt:

AS AT DEC. 31, 2019 (MILLIONS)	Payments Receivable by Period				Total
	Less than 1 Year	1 – 3 Years	4 – 5 Years	After 5 Years	
Receivables from lease contracts	\$ 4,514	\$ 8,239	\$ 6,744	\$ 15,875	\$ 35,372

23. DIRECT COSTS

Direct costs include all attributable expenses except interest, depreciation and amortization, taxes and fair value changes and primarily relate to cost of sales and compensation. The following table lists direct costs for 2019 and 2018 by nature:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Cost of sales	\$ 41,463	\$ 37,506
Compensation	6,035	3,954
Selling, general and administrative expenses	2,612	1,765
Property taxes, sales taxes and other	2,618	2,294
	<u>\$ 52,728</u>	<u>\$ 45,519</u>

24. FAIR VALUE CHANGES

Fair value changes recorded in net income represent gains or losses arising from changes in the fair value of assets and liabilities, including derivative financial instruments, accounted for using the fair value method and are comprised of the following:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Investment properties	\$ 1,710	\$ 1,610
Transaction related (losses) gains, net of deal costs	(895)	1,132
Financial contracts	(140)	(189)
Impairment and provisions	(825)	(309)
Other fair value changes	(681)	(450)
	<u>\$ (831)</u>	<u>\$ 1,794</u>

25. DERIVATIVE FINANCIAL INSTRUMENTS

The company's activities expose it to a variety of financial risks, including market risk (i.e. currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The company selectively uses derivative financial instruments principally to manage these risks.

The aggregate notional amount of the company's derivative positions at December 31, 2019 and 2018 is as follows:

AS AT DEC. 31 (MILLIONS)	Note	2019	2018
Foreign exchange	(a)	\$ 37,334	\$ 33,298
Interest rates	(b)	51,619	38,490
Credit default swaps	(c)	39	56
Equity derivatives	(d)	<u>2,517</u>	<u>1,375</u>
Commodity instruments	(e)	<u>2019</u>	<u>2018</u>
Energy (GWh)		25,136	14,752
Natural gas (MMBtu – 000's)		<u>78,364</u>	<u>63,076</u>

a) Foreign Exchange

The company held the following foreign exchange contracts with notional amounts at December 31, 2019 and 2018:

(MILLIONS)	Notional Amount (U.S. Dollars)		Average Exchange Rate	
	2019	2018	2019	2018
Foreign exchange contracts				
Canadian dollars	\$ 6,839	\$ 4,959	0.75	0.76
British pounds	7,874	4,952	1.27	1.32
European Union euros	2,069	3,829	1.16	1.21
Australian dollars	3,989	3,781	0.71	0.74
Indian rupee	240	697	73.55	72.73
Chilean peso	548	615	722.08	647.37
Korean won ¹	687	561	1,173	1,102
Chinese yuan ¹	1,862	543	5.42	6.85
Japanese yen ¹	111	404	104.58	104.45
Colombian pesos ¹	534	370	3,416	2,977
Brazilian reais	484	78	0.24	0.24
Swedish krona	1,578	94	9.10	7.87
Other currencies	584	436	various	various
Cross currency interest rate swaps				
Canadian dollars	4,493	4,167	0.77	0.75
European Union euros	103	1,914	1.09	1.06
Australian dollars	2,033	1,454	0.98	1.00
Japanese yen ¹	18	750	110.00	113.32
British pounds	267	257	1.49	1.49
Colombian pesos ¹	100	125	3,463	3,056
Other currencies	—	15	—	Various
Foreign exchange futures				
Brazilian reais	38	—	0.25	—
Foreign exchange options				
British pounds	1,338	1,736	1.43	1.31
Chinese yuan	—	500	—	7.10
Indian rupee	—	500	—	67.95
European Union euros	1,544	463	1.12	1.15
Other currencies	—	98	—	Various

1. Average rate is quoted using USD as base currency.

Included in net income are unrealized net gains on foreign currency derivative contracts amounting to \$201 million (2018 – \$457 million) and included in the cumulative translation adjustment account in other comprehensive income are losses in respect of foreign currency contracts entered into for hedging purposes amounting to \$409 million (2018 – gains of \$1.3 billion).

b) Interest Rates

At December 31, 2019, the company held interest rate swap and forward starting swap contracts having an aggregate notional amount of \$25.0 billion (2018 – \$13.9 billion), interest rate swaptions with an aggregate notional amount of \$nil (2018 – \$5.3 billion) and interest rate cap contracts with an aggregate notional amount of \$26.6 billion (2018 – \$19.3 billion).

c) Credit Default Swaps

As at December 31, 2019, the company held credit default swap contracts with an aggregate notional amount of \$39 million (2018 – \$56 million). Credit default swaps are contracts which are designed to compensate the purchaser for any change in the value of an underlying reference asset, based on measurement in credit spreads, upon the occurrence of predetermined credit events. The company is entitled to receive payments in the event of a predetermined credit event for up to \$nil (2018 – \$56 million) of the notional amount and could be required to make payments in respect of \$nil (2018 – \$nil) of the notional amount.

d) Equity Derivatives

At December 31, 2019, the company held equity derivatives with a notional amount of \$2.5 billion (2018 – \$1.4 billion) which includes \$541 million (2018 – \$1.1 billion) notional amount that hedges long-term compensation arrangements. The balance represents common equity and ETF positions established in connection with the company's investment activities. The fair value of these instruments was reflected in the company's consolidated financial statements at year end.

e) Commodity Instruments

The company has entered into energy derivative contracts primarily to hedge the sale of generated power. The company endeavors to link forward electricity sale derivatives to specific periods in which it expects to generate electricity for sale. All energy derivative contracts are recorded at an amount equal to fair value and are reflected in the company's consolidated financial statements. The company has financial contracts outstanding on 78,364,000 MMBtu's (2018 – 63,076,000 MMBtu's) of natural gas as part of its electricity sale price risk mitigation strategy.

Other Information Regarding Derivative Financial Instruments

The following table classifies derivatives elected for hedge accounting during the years ended December 31, 2019 and 2018 as either cash flow hedges or net investment hedges. Changes in the fair value of the effective portion of the hedge are recorded in either other comprehensive income or net income, depending on the hedge classification, whereas changes in the fair value of the ineffective portion of the hedge are recorded in net income:

	2019			2018		
	Notional	Effective Portion	Ineffective Portion	Notional	Effective Portion	Ineffective Portion
FOR THE YEARS ENDED DEC. 31 (MILLIONS)						
Cash flow hedges ¹	\$ 32,709	\$ (89)	\$ 20	\$ 24,999	\$ 38	\$ (3)
Net investment hedges	22,790	(433)	16	17,319	999	9
	<u>\$ 55,499</u>	<u>\$ (522)</u>	<u>\$ 36</u>	<u>\$ 42,318</u>	<u>\$ 1,037</u>	<u>\$ 6</u>

1. Notional amount does not include 14,485 GWh, 12,164 MMBtu – 000's and 2,273 bbls – millions of commodity derivatives at December 31, 2019 (2018 – 6,040 GWh, 8,423 MMBtu – 000's and 3,151 bbls – millions).

The following table presents the change in fair values of the company's derivative positions during the years ended December 31, 2019 and 2018, for derivatives that are fair valued through profit or loss, and derivatives that qualify for hedge accounting:

(MILLIONS)	Unrealized Gains During 2019	Unrealized Losses During 2019	Net Change During 2019	Net Change During 2018
Foreign exchange derivatives.....	\$ 419	\$ (218)	\$ 201	\$ 457
Interest rate derivatives	43	(264)	(221)	(17)
Credit default swaps	—	(1)	(1)	3
Equity derivatives.....	24	(11)	13	(129)
Commodity derivatives	56	(29)	27	(66)
	<u>\$ 542</u>	<u>\$ (523)</u>	<u>\$ 19</u>	<u>\$ 248</u>

The following table presents the notional amounts underlying the company's derivative instruments by term to maturity as at December 31, 2019 and 2018, for derivatives that are classified as fair value through profit or loss, and derivatives that qualify for hedge accounting:

	2019			2018	
AS AT DEC. 31 (MILLIONS)	<1 Year	1 to 5 Years	>5 Years	Total Notional Amount	Total Notional Amount
Fair value through profit or loss					
Foreign exchange derivatives.....	\$ 5,986	\$ 1,803	\$ 157	\$ 7,946	\$ 9,303
Interest rate derivatives	8,293	13,402	1,036	22,731	16,621
Credit default swaps	10	29	—	39	56
Equity derivatives.....	1,589	928	—	2,517	1,375
Commodity instruments					
Energy (GWh)	1,997	8,655	—	10,652	8,712
Natural gas (MMBtu – 000's).....	66,200	—	—	66,200	54,653
Elected for hedge accounting					
Foreign exchange derivatives.....	\$ 15,935	\$ 12,333	\$ 1,119	\$ 29,387	\$ 23,995
Interest rate derivatives	6,489	18,405	3,994	28,888	21,869
Equity derivatives.....	—	—	—	—	—
Commodity instruments					
Energy (GWh)	7,880	4,596	2,009	14,485	6,040
Natural gas (MMBtu – 000's).....	12,164	—	—	12,164	8,423

26. MANAGEMENT OF RISKS ARISING FROM HOLDING FINANCIAL INSTRUMENTS

The company is exposed to the following risks as a result of holding financial instruments: market risk (i.e., interest rate risk, currency exchange risk and other price risk that impact the fair value of financial instruments), credit risk and liquidity risk. The following is a description of these risks and how they are managed:

a) Market Risk

Market risk is defined for these purposes as the risk that the fair value or future cash flows of a financial instrument held by the company will fluctuate because of changes in market prices. Market risk includes the risk of changes in interest rates, currency exchange rates and changes in market prices due to factors other than interest rates or currency exchange rates, such as changes in equity prices, commodity prices or credit spreads.

The company manages market risk from foreign currency assets and liabilities and the impact of changes in currency exchange rates and interest rates by funding assets with financial liabilities in the same currency and with similar interest rate characteristics, and by holding financial contracts such as interest rate and foreign exchange derivatives to minimize residual exposures.

Financial instruments held by the company that are subject to market risk include other financial assets, borrowings and derivative instruments such as interest rate, currency, equity and commodity contracts.

i. Interest Rate Risk

The observable impacts on the fair values and future cash flows of financial instruments that can be directly attributable to interest rate risk include changes in the net income from financial instruments whose cash flows are determined with reference to floating interest rates and changes in the value of financial instruments whose cash flows are fixed in nature.

The company's assets largely consist of long-duration interest-sensitive physical assets. Accordingly, the company's financial liabilities consist primarily of long-term fixed-rate debt or floating-rate debt that has been swapped with interest rate derivatives. These financial liabilities are, with few exceptions, recorded at their amortized cost. The company also holds interest rate caps to limit its exposure to increases in interest rates on floating rate debt that has not been swapped, and holds interest rate contracts to lock in fixed rates on anticipated future debt issuances and as an economic hedge against the changes in value of long duration interest sensitive physical assets that have not been otherwise matched with fixed rate debt.

The result of a 50 basis-point increase in interest rates on the company's net floating rate financial assets and liabilities would have resulted in a corresponding decrease in net income before tax of \$246 million (2018 – \$198 million) on a current basis.

Changes in the value of fair value through profit or loss interest rate contracts are recorded in net income and changes in the value of contracts that are elected for hedge accounting are recorded in other comprehensive income. The impact of a 50 basis-point parallel increase in the yield curve on the aforementioned financial instruments is estimated to result in a corresponding increase in net income before tax of \$146 million (2018 – \$128 million) and an increase in other comprehensive income of \$309 million (2018 – \$149 million), for the years ended December 31, 2019 and 2018.

ii. Currency Exchange Rate Risk

Changes in currency rates will impact the carrying value of financial instruments denominated in currencies other than the U.S. dollar.

The company holds financial instruments with net unmatched exposures in several currencies, changes in the translated value of which are recorded in net income. The impact of a 1% increase in the U.S. dollar against these currencies would have resulted in an \$74 million (2018 – \$80 million) increase in the value of these positions on a combined basis. The impact on cash flows from financial instruments would be insignificant. The company holds financial instruments to limit its exposure to the impact of foreign currencies on its net investments in foreign operations whose functional and reporting currencies are other than the U.S. dollar. A 1% increase in the U.S. dollar would increase the value of these hedging instruments by \$259 million (2018 – \$240 million) as at December 31, 2019, which would be recorded in other comprehensive income and offset by changes in the U.S. dollar carrying value of the net investment being hedged.

iii. Other Price Risk

Other price risk is the risk of variability in fair value due to movements in equity prices or other market prices such as commodity prices and credit spreads.

Financial instruments held by the company that are exposed to equity price risk include equity securities and equity derivatives. A 5% decrease in the market price of equity securities and equity derivatives held by the company, excluding equity derivatives that hedge compensation arrangements, would have decreased net income by \$14 million (2018 – \$50 million) and decreased other comprehensive income by \$70 million (2018 – \$85 million), prior to taxes. The company's liability in respect of equity compensation arrangements is subject to variability based on changes in the company's underlying common share price. The company holds equity derivatives to hedge almost all of the variability. A 5% change in the common equity price of the company in respect of compensation agreements would increase the compensation liability and compensation expense by \$75 million (2018 – \$53 million). This increase would be offset by a \$80 million (2018 – \$53 million) change in value of the associated equity derivatives of which \$75 million (2018 – \$51 million) would offset the above-mentioned increase in compensation expense and the remaining \$5 million (2018 – \$2 million) would be recorded in other comprehensive income.

The company sells power and generation capacity under long-term agreements and financial contracts to stabilize future revenues. Certain of the contracts are considered financial instruments and are recorded at fair value in the consolidated financial statements, with changes in value being recorded in either net income or other comprehensive income as applicable. A 5% increase in energy prices would have decreased net income for the year ended December 31, 2019 by approximately \$5 million (2018 – \$9 million) and decreased other comprehensive income by \$nil (2018 – \$9 million), prior to taxes. The corresponding increase in the value of the revenue or capacity being contracted, however, is not recorded in net income until subsequent periods.

The company held credit default swap contracts with a total notional amount of \$42 million (2018 – \$63 million) at December 31, 2019. The company is exposed to changes in the credit spread of the contracts' underlying reference assets. A 50 basis-point increase in the credit spread of the underlying reference assets would have increased net income by \$1 million (2018 – \$1 million) for the year ended December 31, 2019, prior to taxes.

b) Credit Risk

Credit risk is the risk of loss due to the failure of a borrower or counterparty to fulfill its contractual obligations. The company's exposure to credit risk in respect of financial instruments relates primarily to counterparty obligations regarding derivative contracts, loans receivable and credit investments such as bonds and preferred shares.

The company assesses the creditworthiness of each counterparty before entering into contracts with a view to ensuring that counterparties meet minimum credit quality requirements. Management evaluates and monitors counterparty credit risk for derivative financial instruments and endeavors to minimize counterparty credit risk through diversification, collateral arrangements, and other credit risk mitigation techniques. The credit risk of derivative financial instruments is generally limited to the positive fair value of the instruments, which, in general, tends to be a relatively small proportion of the notional value. Substantially all of the company's derivative financial instruments involve either counterparties that are banks or other financial institutions in North America, the United Kingdom and Australia, or arrangements that have embedded credit risk mitigation features. The company does not expect to incur credit losses in respect of any of these counterparties. The maximum exposure in respect of loans receivable and credit investments is equal to the carrying value.

c) Liquidity Risk

Liquidity risk is the risk that the company cannot meet a demand for cash or fund an obligation as it comes due. Liquidity risk also includes the risk of not being able to liquidate assets in a timely manner at a reasonable price.

To help ensure the company is able to react to contingencies and investment opportunities quickly, the company maintains sources of liquidity at the corporate and subsidiary levels. The primary source of liquidity consists of cash and other financial assets, net of deposits and other associated liabilities, and undrawn committed credit facilities.

The company is subject to the risks associated with debt financing, including the ability to refinance indebtedness at maturity. The company believes these risks are mitigated through the use of long-term debt secured by high quality assets, maintaining debt levels that are in management's opinion relatively conservative, and by diversifying maturities over an extended period of time. The company also seeks to include in its agreements terms that protect the company from liquidity issues of counterparties that might otherwise impact the company's liquidity.

The following tables present the contractual maturities of the company's financial liabilities at December 31, 2019 and 2018.

AS AT DEC. 31, 2019 (MILLIONS)	Payments Due by Period				
	<1 Year	1 to 3 Years	4 to 5 Years	After 5 Years	Total
Principal repayments					
Corporate borrowings	\$ —	\$ 269	\$ 1,597	\$ 5,217	\$ 7,083
Non-recourse borrowings of managed entities	15,563	28,396	34,602	57,731	136,292
Subsidiary equity obligations	188	1,677	745	1,522	4,132
Interest expense ¹					
Corporate borrowings	327	629	551	1,714	3,221
Non-recourse borrowings	5,210	8,524	6,641	7,749	28,124
Subsidiary equity obligations	151	261	212	107	731
Lease Obligations ²	766	1,171	992	11,064	13,993

1. Represents the aggregated interest expense expected to be paid over the term of the obligations. Variable interest rate payments have been calculated based on current rates.
2. The lease obligations as disclosed in the table above include leases that are classified as finance leases, short-term leases, low-value leases and variable lease payments not based on an index or rate, which are immaterial.

AS AT DEC. 31, 2018 (MILLIONS)	Payments Due by Period				
	<1 Year	1 to 3 Years	4 to 5 Years	After 5 Years	Total
Principal repayments					
Corporate borrowings	\$ 440	\$ 257	\$ 441	\$ 5,271	\$ 6,409
Non-recourse borrowings of managed entities	11,159	34,055	24,633	41,962	111,809
Subsidiary equity obligations	185	1,417	356	1,918	3,876
Interest expense ¹					
Corporate borrowings	278	535	504	1,697	3,014
Non-recourse borrowings	5,126	8,124	5,820	7,324	26,394
Subsidiary equity obligations	151	307	218	209	885

1. Represents the aggregated interest expense expected to be paid over the term of the obligations. Variable interest rate payments have been calculated based on current rates.

27. CAPITAL MANAGEMENT

The capital of the company consists of the components of equity in the company's consolidated balance sheet (i.e., common and preferred equity). As at December 31, 2019, the recorded values of these items in the company's consolidated financial statements totaled \$35.0 billion (2018 – \$29.8 billion).

The company's objectives when managing this capital are to maintain an appropriate balance between holding a sufficient amount of capital to support its operations, which includes maintaining investment-grade ratings at the corporate level and providing shareholders with a prudent amount of corporate debt to enhance returns. Corporate debt, which includes subsidiary obligations that are guaranteed by the company or are otherwise considered corporate in nature, totaled \$7.1 billion based on carrying values at December 31, 2019 (2018 – \$6.4 billion). The company monitors its capital base and leverage primarily in the context of its deconsolidated debt-to-total capitalization ratios. The ratio as at December 31, 2019 was 15% (2018 – 17%).

The consolidated capitalization of the company includes the capital and financial obligations of consolidated entities, including long-term property-specific borrowings, subsidiary borrowings, capital securities as well as common and preferred equity held by other investors in these entities. The capital in these entities is managed at the entity level with oversight by management of the company. The capital is managed with the objective of maintaining investment-grade levels in most circumstances and is, except in limited and carefully managed circumstances, without any recourse to the company. Management of the company also takes into consideration capital requirements of consolidated and non-consolidated entities in which it has interests in when considering the appropriate level of capital and liquidity on a deconsolidated basis.

The company is subject to limited covenants in respect of its corporate debt and is in full compliance with all such covenants as at December 31, 2019 and 2018. The company is also in compliance with all covenants and other capital requirements related to regulatory or contractual obligations of material consequence to the company.

28. RELATED PARTY TRANSACTIONS

a) Related Parties

Related parties include subsidiaries, associates, joint ventures, key management personnel, the Board of Directors (“Directors”), immediate family members of key management personnel and Directors and entities which are directly or indirectly controlled by, jointly controlled by or significantly influenced by key management personnel, Directors or their close family members.

b) Key Management Personnel and Directors

Key management personnel are those individuals who have the authority and responsibility for planning, directing and controlling the company’s activities, directly or indirectly, and consist of the company’s Senior Executives. The company’s Directors do not plan, direct or control the activities of the company directly; they provide oversight over the business.

The remuneration of key management personnel and Directors of the company during the years ended December 31, 2019 and 2018 was as follows:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Salaries, incentives and short-term benefits	\$ 19	\$ 21
Share-based payments	46	90
	<u>\$ 65</u>	<u>\$ 111</u>

The remuneration of key management personnel and Directors is determined by the Management Resources and Compensation Committee of the Board of Directors having regard to the performance of individuals and market funds.

c) Related Party Transactions

In the normal course of operations, the company executes transactions on market terms with related parties that have been measured at exchange value and are recognized in the consolidated financial statements, including, but not limited to: base management fees, performance fees and incentive distributions; loans, interest and non-interest bearing deposits; power purchase and sale agreements; capital commitments to private funds; the acquisition and disposition of assets and businesses; derivative contracts; and the construction and development of assets. Transactions and balances between consolidated entities are fully eliminated upon consolidation.

The following table lists the related party balances included within the consolidated financial statements for the years ended December 31, 2019 and 2018:

FOR THE YEARS ENDED DEC. 31 (MILLIONS)	2019	2018
Management fees received	\$ 97	\$ 56

29. OTHER INFORMATION

a) Guarantees and Contingencies

In the normal course of business, the company enters into contractual obligations which include commitments to provide bridge financing, letters of credit, guarantees and reinsurance obligations. As at December 31, 2019, the company had \$4.1 billion (2018 – \$3.1 billion) of such commitments outstanding.

In addition, the company executes agreements that provide for indemnifications and guarantees to third parties in transactions or dealings such as business dispositions, business acquisitions, sales of assets, provision of services, securitization agreements and underwriting and agency agreements. The company has also agreed to indemnify its directors and certain of its officers and employees. The nature of substantially all of the indemnification undertakings prevents the company from making a reasonable estimate of the maximum potential amount the company could be required to pay third parties, as in most cases, the agreements do not specify a maximum amount, and the amounts are dependent upon the outcome of future contingent events, the nature and likelihood of which cannot be determined at this time. Neither the company nor its consolidated subsidiaries have made significant payments in the past nor do they expect at this time to make any significant payments under such indemnification agreements in the future.

The company periodically enters into joint ventures, consortium or other arrangements that have contingent liquidity rights in favor of the company or its counterparties. These include buy sell arrangements, registration rights and other customary arrangements that generally have embedded protective terms that mitigate the risk to us. The amount, timing and likelihood of

any payments by the company under these arrangements is, in most cases, dependent on either further contingent events or circumstances applicable to the counterparty and therefore cannot be determined at this time.

The company is contingently liable with respect to litigation and claims that arise in the normal course of business. It is not reasonably possible that any of the ongoing litigation as at December 31, 2019 could result in a material settlement liability.

The company has insurance for damage and business interruption costs sustained as a result of an act of terrorism. The amount of coverage is reviewed on an individual basis and can range up to \$4 billion. However, a terrorist act could have a material effect on the company's assets to the extent damages exceed coverage.

The company, through its subsidiaries within the residential properties operations, is contingently liable for obligations of its associates in its land development joint ventures. In each case, all of the assets of the joint venture are available first for the purpose of satisfying these obligations, with the balance shared among the participants in accordance with predetermined joint venture arrangements.

The Corporation has entered into arrangements with respect to the \$1.8 billion of exchangeable preferred equity units issued by BPY discussed in Note 19, which are redeemable in equal tranches of \$600 million in 2021, 2024 and 2026, respectively.

The preferred equity units are exchangeable into equity units of BPY at \$25.70 per unit, at the option of the holder, at any time up to and including the maturity date. BPY may redeem the preferred equity units after specified periods if the BPY equity unit price exceeds predetermined amounts. At maturity, the preferred equity units will be converted into BPY equity units at the lower of \$25.70 or the then market price of a BPY equity unit. In order to provide the purchaser with enhanced liquidity, the Corporation has agreed to purchase the preferred equity units for cash at the option of the holder, for the initial purchase price plus accrued and unpaid dividends. In order to decrease dilution risk to BPY, the Corporation has agreed with the holder and BPY that if the price of a BPY equity unit is less than 80% of the exchange price of \$25.70 at the redemption date of the 2021 and 2024 tranches, the Corporation will acquire the preferred equity units subject to redemption, at the redemption price, and to exchange these preferred equity units for preferred equity units with similar terms and conditions, including redemption date, as the 2026 tranche.

b) Supplemental Cash Flow Information

During the year, the company capitalized \$233 million (2018 – \$176 million) of interest primarily to investment properties and residential inventory under development.

30. SUBSEQUENT EVENTS

On February 21, 2020, the company completed the public offering of \$600 million notes due 2050. The notes have a coupon of 3.45%. The net proceeds from the issuance was partially used in exercising the right to redeem the \$269 million (C\$350 million), 5.30% notes outstanding, due on March 1, 2021.

Subsequent to December 31, 2019, the Board of Directors also approved a three-for-two stock split of the company's outstanding Class A Shares. The stock dividend will be payable on April 1, 2020 to shareholders of record at the close of business on February 28, 2020. Fractional shares will be paid in cash based on the closing price of the Class A Shares on the Toronto Stock Exchange on the record date.

Subsequent to December 31, 2019, financial markets have been negatively impacted by the novel Coronavirus or COVID-19 pandemic, which has resulted in economic uncertainty. The company is not able to predict or forecast the extent and duration of the economic uncertainty, and consequently, it is difficult to reliably measure the potential impact of this uncertainty on future financial results.